TRENDS IN INTERNATIONAL MATHEMATICS AND SCIENCE STUDY

TIMSS

TIMSS 2007
User Guide
for the International Database

Supplement 3

Variables Derived from the Student, Teacher, and School Questionnaire Data

TIMSS & PIRLS
International Study Center
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Supplement 3

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Overview

This supplement contains documentation on all the derived variables contained in the TIMSS 2007 data files that are based on background questionnaire variables. These variables were used to report background data in the TIMSS 2007 international reports, and are made available as part of this database to be used in secondary analyses. This supplement has seven sections corresponding to each background questionnaire from which reporting variables are derived.

- Section 1: Fourth Grade Student Questionnaire
- Section 2: Fourth Grade Teacher Questionnaire
- Section 3: Fourth Grade School Questionnaire
- Section 4 Eighth Grade Student Questionnaires
- Section 5: Eighth Grade Mathematics Teacher Questionnaire
- Section 6: Eighth Grade Science Teacher Questionnaire
- Section 7: Eighth Grade School Questionnaire

Each section lists the derived variables in the order that they appear in the international reports. The following information is provided for each derived variable:

- Derived Variable Name, Variable Label, and Grade
- Title of International Report Exhibit
- Report Location and Subject
- Questionnaire Location

- Source Variables

- A procedural description of how the derived variable was computed, including missing data rules

- Information about how the variable was reported in previous cycles, if applicable

Derived Variable Naming Conventions

The derived variables are named according to the variable-naming conventions in the TIMSS international database (see Chapter 4).

Variables Derived from Student Background Data – Fourth Grade (Section 1)

There are three types of derived variables:

- Variables related to general student background (ASDG****)

- Variables related to mathematics learning and instruction (ASDM****)

- Variables related to science learning and instruction (ASDS****)

Variables Derived from Teacher Background Data – Fourth Grade (Section 2)

There are three types of derived variables:

- Variables related to general teacher background (ATDG****)

- Variables related to mathematics classes and teaching mathematics (ATDM****)

- Variables related to science classes and teaching science (ATDS****)

Variables Derived from School Background Data – Fourth Grade (Section 3)

There are three types of derived variables:

- Variables related to general school background (ACDG****)

- Variables related to mathematics instruction (ACDM****)

- Variables related to science instruction (ACDS****)

Variables Derived from Student Background Data – Eighth Grade (Section 4)

There are four types of derived variables:

- Variables related to general student background (BSDG****)

- Variables related to mathematics learning and instruction (BSDM****)

- Variables related to science learning and instruction (BSDS****); these variables contain data only for countries administering the general science version of the student questionnaire

- Variables related to separate science subjects learning and instruction: biology (BSDB****), earth science (BSDE****), chemistry (BSDC****), physics (BSDP****); these variables contain data only for countries administering the separate science subjects version of the student questionnaire

Variables Derived from Mathematics Teacher Background Data – Eighth Grade (Section 5)

There are two types of derived variables:

- Variables related to general teacher background (BTDG****)

- Variables related to mathematics classes and teaching mathematics (BTDM****)

Variables Derived from Science Teacher Background Data – Eighth Grade (Section 6)

There are two types of derived variables:

- Variables related to general teacher background (BTDG****)

- Variables related to science classes and teaching science (BTDS****)

Variables Derived from School Background Data – Eighth Grade (Section 7)

There are three types of derived variables:

- Variables related to general school background (BCDG****)

- Variables related to mathematics instruction (BCDM****)

- Variables related to science instruction (BCDS****)

Fourth Grade
Student Questionnaire

Section 1

Derived Variable Name: asdgborn	**Variable Label:** Parents Born in Country	**Grade:** Fourth

Title of International Report Exhibit:	Students' Parents Born in the Country with Trends
Report Location:	4.3 Math and Science
Questionnaire Location:	SQ1_16A,B
Source Variable:	AS4GMBRN, AS4GFBRN

Procedure:

Based on responses to the following questions in the Student Questionnaire:

Was your mother (or stepmother or female guardian) born in <country>? (SQ1_16A, AS4GMBRN)

Was your father (or stepfather or male guardian) born in <country>? (SQ1_16B, AS4GFBRN)

Response options: Yes = 1; No = 2

1 = Both Parents Born in Country = Responded "Yes" to AS4GMBRN and AS4GFBRN

2 = Only One Parent Born in Country = Responded "Yes" to AS4GMBRN and "No" or "MISSING" to AS4GFBRN or responded "Yes" to AS4GFBRN and "No" or "MISSING" to AS4GMBRN

3 = Neither Parent Born in Country = Responded "No" or "MISSING" to AS4GMBRN and AS4GFBRN

Trend Comments:

Derived Variable Name: asdgcavl	**Variable Label:** Computer Use	**Grade:** Fourth

Title of International Report Exhibit:	Computer Use with Trends
Report Location:	4.6 Math and Science
Questionnaire Location:	SQ1_10A; SQ1_10Ba,b,c
Source Variable:	AS4GUSEC, AS4GCHOM, AS4GCSCH, AS4GCELS

Procedure: Based on the responses to the following questions in the Student Questionnaire:

Do you ever use a computer? (Do not include PlayStation, GameCube, Xbox, or other TV/video game computers.) (SQ1_10A, AS4GUSEC)

Response options: Yes = 1; No = 2

Where do you use a computer?
  At home (SQ1_10Ba, AS4GCHOM)
  At school (SQ1_10Bb, AS4GCSCH)
  Elsewhere (e.g., public library, friend's home, Internet café) (SQ1_10Bc, AS4GCELS)
Response options: Yes = 1; No = 2

1 = Use Computer Both at Home and at School = Responded "Yes" to AS4GUSEC, AS4GCHOM and AS4GCSCH

2 = Use Computer at Home but Not at School = Responded "Yes" to AS4GUSEC and AS4GCHOM and "No" or "MISSING" to AS4GCSCH

3 = Use Computer at School but Not at Home = Responded "Yes" to AS4GUSEC and AS4GCSCH and "No" or "MISSING" to AS4GCHOM

4 = Use Computer Only at Places Other than Home and School = Responded "Yes" to AS4GUSEC and AS4GCELS and "No" or "MISSING" to AS4GCHOM and AS4GCSCH

5 = Do Not Use Computer at All = Responded "No" to AS4GUSEC

The derived variable is coded as missing, if AS4GUSEC is "Yes" or "MISSING", and AS4GCHOM and AS4GCSCH and AS4GCELS are "No" or "MISSING".

Trend Comments: Released in 2003.

Derived Variable Name: asdmtmh	**Variable Label:** Index of Time on Math Homework (TMH)	**Grade:** Fourth

Title of International Report Exhibit:
Index of Time Students Spend Doing Mathematics Homework (TMH) in a Normal School Week

Report Location:
4.7 Math

Questionnaire Location: SQ1_14A,B

Source Variable:
AS4MOHWG, AS4MSHWM

Procedure:
Based on the responses to the following questions in the Student Questionnaire:

How often does your teacher give you homework in mathematics? (SQ1_14A, AS4MOHWG)
Response options: Every day = 1 ; 3 or 4 times a week = 2; 1 or 2 times a week = 3; Less than once a week = 4; Never = 5

When your teacher gives you mathematics homework, about how many minutes do you usually spend on your homework? (SQ1_14B, AS4MSHWM)
Response options: Zero minutes = 1; 1–15 minutes = 2; 16–30 minutes = 3; 31–60 minutes = 4; 61–90 minutes = 5; More than 90 minutes = 6

1 = High = Responded "Every day" or "3 or 4 times a week" to AS4MOHWG and "31-60 minutes" or "61-90 minutes" or "More than 90 minutes" to AS4MSHWM
2 = Medium = All other response combinations
3 = Low = Responded "Never" to AS4MOHWG or responded "1 or 2 times a week " or "Less than once a week" to AS4MOHWG and "Zero minutes" or "1-15 minutes" or "16-30 minutes" to AS4MSHWM

The index is coded as missing if AS4MOHWG is "MISSING", or AS4MSHWM is "MISSING" and AS4MOHWG is "VALID" but different than "Never".

Trend Comments:
Released in 2003 as asdmhw. Wording in question part B (AS4MSHWM) modified in 2007.

Derived Variable Name: asdstsh	**Variable Label:** Index of Time on Science Homework (TSH)	**Grade:** Fourth

Title of International Report Exhibit:	Index of Time Students Spend Doing Science Homework (TSH) in a Normal School Week
Report Location:	4.7 Science
Questionnaire Location:	SQ1_15A,B
Source Variable:	AS4SOHWG, AS4SSHWM

Procedure:

Based on the responses to the following questions in the Student Questionnaire:

How often does your teacher give you homework in science? (SQ1_15A, AS4SOHWG)

Response options: Every day = 1 ; 3 or 4 times a week = 2; 1 or 2 times a week = 3; Less than once a week = 4; Never = 5

When your teacher gives you science homework, about how many minutes do you usually spend on your homework? (SQ1_15B, AS4SSHWM)

Response options: Zero minutes = 1; 1–15 minutes = 2; 16–30 minutes = 3; 31–60 minutes = 4; 61–90 minutes = 5; More than 90 minutes = 6

1 = High = Responded "Every day" or "3 or 4 times a week" to AS4SOHWG and "31-60 minutes" or "61-90 minutes" or "More than 90 minutes" to AS4SSHWM

2 = Medium = All other response combinations

3 = Low = Responded "Never" to AS4SOHWG or responded "1 or 2 times a week " or "Less than once a week" to AS4SOHWG and "Zero minutes" or "1-15 minutes" or "16-30 minutes" to AS4SSHWM

The index is coded as missing if AS4SOHWG is "MISSING", or AS4SSHWM is "MISSING" and AS4SOHWG is "VALID" but different than "Never".

Trend Comments: Released in 2003 as asdshw. Wording in question part B (AS4SSHWM) modified in 2007.

Derived Variable Name: asdmpatm   **Variable Label:** Index Studs Pos Affect To Math (PATM)   **Grade:** Fourth

Title of International Report Exhibit:	Index of Students' Positive Affect Toward Mathematics (PATM) with Trends
Report Location:	4.8 Math
Questionnaire Location:	SQ1_6d,g,h
Source Variable:	AS4MAENJ, AS4MABOR, AS4MALIK

Procedure:

Based on the responses to the following question in the Student Questionnaire:

How much do you agree with these statements about learning mathematics?

I enjoy learning mathematics (SQ1_6d, AS4MAENJ)

Mathematics is boring (SQ1_6g, AS4MABOR)

I like mathematics (SQ1_6h, AS4MALIK)

Response options: Agree a lot = 1; Agree a little = 2; Disagree a little = 3; Disagree a lot = 4

The index is computed by averaging the responses to the three source questions ("Mathematics is boring" is reverse coded).

1 = High = Average is less than or equal to 2

2 = Medium = Average is greater than 2 and less than 3

3 = Low = Average is greater than or equal to 3

The index is coded as missing if there are 2 or more source questions with invalid data.

Trend Comments: Trends reported to 1995 in TIMSS 2007 international reports, but variable not released in previous cycles.

Derived Variable Name: asdspats	**Variable Label:** Index Studs Pos Affect To Science (PATS)	**Grade:** Fourth

Title of International Report Exhibit: Index of Students' Positive Affect Toward Science (PATS) with Trends

Report Location: 4.8 Science

Questionnaire Location: SQ1_8d,g,h

Source Variable: AS4SAENJ, AS4SABOR, AS4SALIK

Procedure: Based on the responses to the following question in the Student Questionnaire:

How much do you agree with these statements about learning science?

I enjoy learning science (SQ1_8d, AS4SAENJ)

Science is boring (SQ1_8g, AS4SABOR)

I like science (SQ1_8h, AS4SALIK)

Response options: Agree a lot = 1; Agree a little = 2; Disagree a little = 3; Disagree a lot = 4

The index is computed by averaging the responses to the three source questions ("Science is boring" is reverse coded).

1 = High = Average is less than or equal to 2

2 = Medium = Average is greater than 2 and less than 3

3 = Low = Average is greater than or equal to 3

The index is coded as missing if there are 2 or more source questions with invalid data.

Trend Comments: Trends reported to 1995 in TIMSS 2007 international reports, but variable not released in previous cycles.

Derived Variable Name: asdmscm   **Variable Label:** Index Self-Confid Learning Math (SCM)   **Grade:** Fourth

Title of International Report Exhibit:	Index of Students' Self-Confidence in Learning Mathematics (SCM) with Trends; Index of Students' Self-Confidence in Learning Mathematics (SCM) by Gender
Report Location:	4.10; 4.11 Math
Questionnaire Location:	SQ1_6a,c,e,f
Source Variable:	AS4MAWEL, AS4MACLM, AS4MANOT, AS4MAQKY

Procedure:

Based on the responses to the following question in the Student Questionnaire:

How much do you agree with these statements about learning mathematics?

I usually do well in mathematics (SQ1_6a, AS4MAWEL)

Mathematics is harder for me than for many of my classmates (SQ1_6c, AS4MACLM)

I'm just not good at mathematics (SQ1_6e, AS4MANOT)

I learn things quickly in mathematics (SQ1_6f, AS4MAQKY)

Response options: Agree a lot = 1; Agree a little = 2; Disagree a little = 3; Disagree a lot = 4

The index is computed by averaging the responses to the four source questions ("Mathematics is harder for me than for many of my classmates" and "I'm just not good at mathematics" are reverse coded).

1 = High = Average is less than or equal to 2

2 = Medium = Average is greater than 2 and less than 3

3 = Low = Average is greater than or equal to 3

The index is coded as missing if there are 2 or more source questions with invalid data.

Trend Comments: Released in 2003 as asdmscl.

Derived Variable Name: asdsscs	**Variable Label:** Index Self-Confid Learning Science (SCS)	**Grade:** Fourth

Title of International Report Exhibit:	Index of Students' Self-Confidence in Learning Science (SCS) with Trends; Index of Students' Self-Confidence in Learning Science (SCS) by Gender
Report Location:	4.10; 4.11 Science
Questionnaire Location:	SQ1_8a,c,e,f
Source Variable:	AS4SAWEL, AS4SACLM, AS4SANOT, AS4SAQKY

| **Procedure:** | Based on the responses to the following question in the Student Questionnaire:

How much do you agree with these statements about learning science?

I usually do well in science (SQ1_8a, AS4SAWEL)

Science is harder for me than for many of my classmates (SQ1_8c, AS4SACLM)

I'm just not good at science (SQ1_8e, AS4SANOT)

I learn things quickly in science (SQ1_8f, AS4SAQKY)

Response options: Agree a lot = 1; Agree a little = 2; Disagree a little = 3; Disagree a lot = 4

The index is computed by averaging the responses to the four source questions ("Science is harder for me than for many of my classmates" and "I'm just not good at science" are reverse coded).

1 = High = Average is less than or equal to 2

2 = Medium = Average is greater than 2 and less than 3

3 = Low = Average is greater than or equal to 3

The index is coded as missing if there are 2 or more source questions with invalid data. |
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Trend Comments:	Released in 2003 as asdsscl.

Derived Variable Name: asdgpbss	**Variable Label:** Idx Std Prcptn Being Safe School (SPBSS)	**Grade:** Fourth

Title of International Report Exhibit:

Index of Students' Perception of Being Safe in School (SPBSS) with Trends

Report Location:

8.14 Math

8.15 Science

Questionnaire Location: SQ1_12a,b,c,d,e

Source Variable:

AS4GSTOL, AS4GHURT, AS4GMADE, AS4GMFUN, AS4GLEFT

Procedure:

Based on the responses to the following question in the Student Questionnaire:

In school, did any of these things happen during the last month?

Something of mine was stolen (SQ1_12a, AS4GSTOL)

I was hit or hurt by other student(s) (e.g., shoving, hitting, kicking) (SQ1_12b, AS4GHURT)

I was made to do things that I didn't want to do by other students (SQ1_12c, AS4GMADE)

I was made fun of or called names (SQ1_12d, AS4GMFUN)

I was left out of activities by other students (SQ1_12e, AS4GLEFT)

Response options: Yes = 1; No = 2

1 = High = Responded "No" to all five statements

2 = Medium = All other response combinations

3 = Low = Responded "Yes" to three or more statements

The index is coded as missing if there are 2 or more source questions with invalid data.

Trend Comments:

Released in 2003 as asdgpss.

Fourth Grade
Teacher Questionnaire

Section 2

Derived Variable Name: atdmptit	**Variable Label:** Math Time As Pct of Total InstrTime	**Grade:** Fourth

Title of International Report Exhibit: Weekly Intended and Implemented Instructional Time for Mathematics with Trends

Report Location: 5.1 Math

Questionnaire Location: SCQ1_5Bab; SCQ1_5C; TQ1_13

Source Variable: AC4GHTIT, AC4GMTIT, AC4GDSOI, AT4MTIMT

Procedure: Based on responses to the following questions in the School Questionnaire:

What is the total instructional time, excluding breaks, in a typical day?

A. Hours (SCQ1_5Ba, AC4GHTIT)

B. Minutes (SCQ1_5Bb, AC4GMTIT)

In one calendar week, how many days is the school open for instruction? (SCQ1_5C, AC4GDSOI)

Response options: 6 days = 1; 5 1/2 days =2; 5 days = 3; 4 1/2 days = 4; 4 days = 5; other = 6

And on responses to the following question in the Teacher Questionnaire:

How many minutes per week do you teach mathematics to the <fourth-grade> students in the TIMSS class? (TQ1_13, AT4MTIMT)

The derived variable (mathematics instructional time as a percent of total instructional time) is computed as follows:

Step 1: Recode AC4GDSOI as follows: 6 (Option 1) and 5 1/2 (Option 2) to 6, 5 (Option 3) and 4 1/2 (Option 4) to 5 and "Other" (Option 6) to "MISSING"

Step 2: Compute average total hours of instructional time per week: AC4GDSOI (recoded in Step 1) * [AC4GHTIT +(AC4GMTIT/60)]

Step 3: Compute mathematics instructional hours/week: AT4MTIMT/60

Step 4: Result of Step 3 multiplied by 100 and divided by result of Step 2

Use AC4GHTIT if AC4GMTIT is "MISSING". Use AC4GMTIT/60 if AC4GHTIT is "MISSING".

Trend Comments: Trends reported to 2003 in TIMSS 2007 international reports, but variable not released in previous cycles.

Derived Variable Name: atdsptit	**Variable Label:** Sci Time As Pct of Total InstrTime	**Grade:** Fourth

Title of International Report Exhibit: Weekly Intended and Implemented Instructional Time for Science with Trends

Report Location: 5.2 Science

Questionnaire Location: SCQ1_5Bab; SCQ1_5C; TQ1_30A,B

Source Variable: AC4GHTIT, AC4GMTIT, AC4GDSOI, AT4SYMWT, AT4SNMWT

Procedure: Based on responses to the following questions in the School Questionnaire:

What is the total instructional time, excluding breaks, in a typical day?

A. Hours (SCQ1_5Ba, AC4GHTIT)

B. Minutes (SCQ1_5Bb, AC4GMTIT)

In one calendar week, how many days is the school open for instruction? (SCQ1_5C, AC4GDSOI)

Response options: 6 days = 1; 5 1/2 days =2; 5 days = 3; 4 1/2 days = 4; 4 days = 5; other = 6

And on responses to the following question in the Teacher Questionnaire:

How many minutes per week do you teach science to (spend on science topics with) the <fourth-grade> students in the TIMSS class? (TQ1_30A,B; AT4SYMWT or AT4SNMWT)

(Use AT4SYMWT if science is taught as a separate subject and AT4SNMWT if science is taught integrated into other subjects)

The derived variable (science instructional time as a percent of total instructional time) is computed as follows:

Step 1: Recode AC4GDSOI as follows: 6 (Option 1) and 5 1/2 (Option 2) to 6, 5 (Option 3) and 4 1/2 (Option 4) to 5 and "Other" (Option 6) to "MISSING"

Step 2: Compute average total hours of instructional time per week: AC4GDSOI (recoded in Step 1) * [AC4GHTIT +(AC4GMTIT/60)]

Step 3: Compute science instructional hours/week: AT4SYMWT or AT4SNMWT/60

Step 4: Result of Step 3 multiplied by 100 and divided by result of Step 2

Use AC4GHTIT if AC4GMTIT is "MISSING". Use AC4GMTIT/60 if AC4GHTIT is "MISSING".

Trend Comments: Trends reported to 2003 in TIMSS 2007 international reports, but variable not released in previous cycles.

Derived Variable Name: atdmyit   **Variable Label:** Math Yearly Instructional Time   **Grade:** Fourth

Title of International Report Exhibit:	Yearly Hours of Implemented Instructional Time for Mathematics with Trends
Report Location:	5.2 Math
Questionnaire Location:	SCQ1_5A; SCQ1_5C; TQ1_13
Source Variable:	AC4GDYSO, AC4GDSOI, AT4MTIMT

Procedure:

Based on responses to the following questions in the School Questionnaire:

How many days per year is your school open for instruction? (SCQ1_5A, AC4GDYSO)

In one calendar week, how many days is the school open for instruction? (SCQ1_5C, AC4GDSOI)

Response options: 6 days = 1; 5 1/2 days =2; 5 days = 3; 4 1/2 days = 4; 4 days = 5; other = 6

And on responses to the following question in the Teacher Questionnaire:

How many minutes per week do you teach mathematics to the <fourth-grade> students in the TIMSS class? (TQ1_13; AT4MTIMT)

The derived variable (yearly hours of mathematics instructional time) is computed as follows:

Step 1: Recode AC4GDSOI as follows: 6 (Option 1) and 5 1/2 (Option 2) to 6, 5 (Option 3) and 4 1/2 (Option 4) to 5 and "Other" (Option 6) to "MISSING"

Step 2: Compute total instructional weeks/year: AC4GDYSO/AC4GDSOI (recoded in Step 1) (Set "total instructional weeks per year" to missing if less than 30 or more than 48)

Step 3: Compute mathematics instructional hours/week: AT4MTIMT/60

Step 4: Compute mathematics instructional hours/year: Result of Step 2 multiplied by result of Step 3

The derived variable is coded "MISSING" if "total instructional weeks per year" or AT4MTIMT is "MISSING".

Trend Comments: Trends reported to 2003 in TIMSS 2007 international reports, but variable not released in previous cycles.

Derived Variable Name: atdsyit	**Variable Label:** Science Yearly Instructional Time	**Grade:** Fourth

Title of International Report Exhibit:	Yearly Hours of Implemented Instructional Time for Science with Trends

Report Location:	5.3 Science

Questionnaire Location:	SCQ1_5A; SCQ1_5C; TQ1_30A,B

Source Variable:	AC4GDYSO, AC4GDSOI, AT4SYMWT, AT4SNMWT

Procedure:	Based on responses to the following questions in the School Questionnaire:

How many days per year is your school open for instruction? (SCQ1_5A, AC4GDYSO)

In one calendar week, how many days is the school open for instruction? (SCQ1_5C, AC4GDSOI)
Response options: 6 days = 1; 5 1/2 days =2; 5 days = 3; 4 1/2 days = 4; 4 days = 5; other = 6

And on responses to the following question in the Teacher Questionnaire:
How many minutes per week do you teach science to (spend on science topics with) the <fourth-grade> students in the TIMSS class? (TQ1_30A,B; AT4SYMWT or AT4SNMWT)
(Use AT4SYMWT if science is taught as a separate subject and AT4SNMWT if science is taught integrated into other subjects)

The derived variable (yearly hours of science instructional time) is computed as follows:
Step 1: Recode AC4GDSOI as follows: 6 (Option 1) and 5 1/2 (Option 2) to 6, 5 (Option 3) and 4 1/2 (Option 4) to 5 and "Other" (Option 6) to "MISSING"
Step 2: Compute total instructional weeks/year: AC4GDYSO/AC4GDSOI (recoded in Step 1) (Set "total instructional weeks per year" to missing if less than 30 or more than 48)
Step 3: Compute science instructional hours/week: AT4SYMWT or AT4SNMWT/60
Step 4: Compute science instructional hours/year: Result of Step 2 multiplied by result of Step 3

The derived variable is coded "MISSING" if "total instructional weeks per year" or AT4SYMWT or AT4SNMWT is "MISSING".

Trend Comments:	Trends reported to 2003 in TIMSS 2007 international reports, but variable not released in previous cycles.

Derived Variable Name: atdmtpnu	**Variable Label:** Summ Students Taught Number Math Topics	**Grade:** Fourth

Title of International Report Exhibit:

Summary of Students Taught the TIMSS Mathematics Topics

Report Location:

5.5 Math

Questionnaire Location: TQ1_22Aa-s

Source Variable:

AT4MTI01 to AT4MTI19

Procedure:

Based on responses to the following question in the Teacher Questionnaire:

The following list includes the main topics addressed by the TIMSS mathematics test. Choose the response that best describes when students in the TIMSS Class have been taught each topic. If a topic was taught half this year but not yet completed, please choose "Mostly taught this year." If a topic is not in the curriculum, please choose "Not yet taught or just introduced."

NUMBER topics (TQ1_22Aa-s; AT4MTI01, AT4MTI02, AT4MTI03, AT4MTI04, AT4MTI05, AT4MTI06, AT4MTI07, AT4MTI08, AT4MTI09, AT4MTI10, AT4MTI11, AT4MTI12, AT4MTI13, AT4MTI14, AT4MTI15, AT4MTI16, AT4MTI17, AT4MTI18, AT4MTI19)

Response options: Mostly taught before this year = 1; Mostly taught this year = 2; Not yet taught or just introduced=3

Compute the percentage of students whose teachers responded "Mostly Taught Before This Year" OR "Mostly Taught This Year" for the individual topics. Following this compute the average across the percentages of students taught all NUMBER topics mostly before this year or this year.

The derived variable is coded "MISSING" if there are more than one-third of the source questions with invalid data.

Trend Comments:

Derived Variable Name: atdmtpge   **Variable Label:** Summ Students Taught Geometr Math Topics   **Grade:** Fourth

Title of International Report Exhibit:	Summary of Students Taught the TIMSS Mathematics Topics
Report Location:	5.5 Math
Questionnaire Location:	TQ1_22Ba-k
Source Variable:	AT4MTI20 to AT4MTI30

Procedure: Based on responses to the following question in the Teacher Questionnaire:

The following list includes the main topics addressed by the TIMSS mathematics test. Choose the response that best describes when students in the TIMSS Class have been taught each topic. If a topic was taught half this year but not yet completed, please choose "Mostly taught this year." If a topic is not in the curriculum, please choose "Not yet taught or just introduced."

GEOMETRIC SHAPES AND MEASURES topics (TQ1_22Ba-k; AT4MTI20, AT4MTI21, AT4MTI22, AT4MTI23, AT4MTI24, AT4MTI25, AT4MTI26, AT4MTI27, AT4MTI28, AT4MTI29, AT4MTI30)

Response options: Mostly taught before this year = 1; Mostly taught this year = 2; Not yet taught or just introduced=3

Compute the percentage of students whose teachers responded "Mostly Taught Before This Year" OR "Mostly Taught This Year" for the individual topics. Following this compute the average across the percentages of students taught all GEOMETRIC SHAPES AND MEASURES topics mostly before this year or this year.

The derived variable is coded "MISSING" if there are more than one-third of the source questions with invalid data.

Trend Comments:

Derived Variable Name: atdmtpda	**Variable Label:** Summ Students Taught Data Math Topics	**Grade:** Fourth

Title of International Report Exhibit:

Summary of Students Taught the TIMSS Mathematics Topics

Report Location:

5.5 Math

Questionnaire Location: TQ1_22Ca-e

Source Variable:

AT4MTI31 to AT4MTI35

Procedure:

Based on responses to the following question in the Teacher Questionnaire:

The following list includes the main topics addressed by the TIMSS mathematics test. Choose the response that best describes when students in the TIMSS Class have been taught each topic. If a topic was taught half this year but not yet completed, please choose "Mostly taught this year." If a topic is not in the curriculum, please choose "Not yet taught or just introduced."

DATA DISPLAY topics (TQ1_22Ca-e; AT4MTI31, AT4MTI32, AT4MTI33, AT4MTI34, AT4MTI35)

Response options: Mostly taught before this year = 1; Mostly taught this year = 2; Not yet taught or just introduced=3

Compute the percentage of students whose teachers responded "Mostly Taught Before This Year" OR "Mostly Taught This Year" for the individual topics. Following this compute the average across the percentages of students taught all DATA DISPLAY topics mostly before this year or this year.

The derived variable is coded "MISSING" if there are more than one-third of the source questions with invalid data.

Trend Comments:

Derived Variable Name: atdmtpov	**Variable Label:** Summ Students Taught Overall Math Topics	**Grade:** Fourth

Title of International Report Exhibit:	Summary of Students Taught the TIMSS Mathematics Topics

Report Location:	5.5 Math

Questionnaire Location:	TQ1_22Aa-s; TQ1_22Ba-k; TQ1_22Ca-e

Source Variable:	AT4MTI01 to AT4MTI19; AT4MTI20 to AT4MTI30; AT4MTI31 to AT4MTI35

Procedure:	Based on responses to the following question in the Teacher Questionnaire:

The following list includes the main topics addressed by the TIMSS mathematics test. Choose the response that best describes when students in the TIMSS Class have been taught each topic. If a topic was taught half this year but not yet completed, please choose "Mostly taught this year." If a topic is not in the curriculum, please choose "Not yet taught or just introduced."

A. NUMBER topics (TQ1_22Aa-s; AT4MTI01, AT4MTI02, AT4MTI03, AT4MTI04, AT4MTI05, AT4MTI06, AT4MTI07, AT4MTI08, AT4MTI09, AT4MTI10, AT4MTI11, AT4MTI12, AT4MTI13, AT4MTI14, AT4MTI15, AT4MTI16, AT4MTI17, AT4MTI18, AT4MTI19)

B. GEOMETRIC SHAPES AND MEASURES topics (TQ1_22Ba-k; AT4MTI20, AT4MTI21, AT4MTI22, AT4MTI23, AT4MTI24, AT4MTI25, AT4MTI26, AT4MTI27, AT4MTI28, AT4MTI29, AT4MTI30)

C. DATA DISPLAY topics (TQ1_22Ca-e; AT4MTI31, AT4MTI32, AT4MTI33, AT4MTI34, AT4MTI35)

Response options: Mostly taught before this year = 1; Mostly taught this year = 2; Not yet taught or just introduced=3

Compute the percentage of students whose teachers responded "Mostly Taught Before This Year" OR "Mostly Taught This Year" for the individual topics. Following this compute the average across the percentages of students taught all MATHEMATICS topics mostly before this year or this year.

The derived variable is coded "MISSING" if there are more than one-third of the source questions with invalid data.

Trend Comments:	

| **Derived Variable Name:** atdstpls | **Variable Label:** Summ Students Taught Life Science Topics | **Grade:** Fourth |

Title of International Report Exhibit: Summary of Students Taught the TIMSS Science Topics

Report Location: 5.6 Science

Questionnaire Location: TQ1_36Aa-k

Source Variable: AT4STI01 to AT4STI11

Procedure: Based on responses to the following question in the Teacher Questionnaire:

The following list includes the main topics addressed by the TIMSS science test. Choose the response that best describes when the <fourthgrade> students in the TIMSS class have been taught each topic. If a topic was taught half this year but not yet completed, please choose "Mostly taught this year." If a topic is not in the curriculum, please choose "Not yet taught or just introduced."
LIFE SCIENCE topics (TQ1_36Aa-k; AT4STI01, AT4STI02, AT4STI03, AT4STI04, AT4STI05, AT4STI06, AT4STI07, AT4STI08, AT4STI09, AT4STI10, AT4STI11)

Response options: Mostly taught before this year = 1; Mostly taught this year = 2; Not yet taught or just introduced=3

Compute the percentage of students whose teachers responded "Mostly Taught Before This Year" OR "Mostly Taught This Year" for the individual topics. Following this compute the average across the percentages of students taught all LIFE SCIENCE topics mostly before this year or this year.

The derived variable is coded "MISSING" if there are more than one-third of the source questions with invalid data.

Trend Comments:

Derived Variable Name: atdstpps	**Variable Label:** Summ Students Taught Phys Science Topics	**Grade:** Fourth

Title of International Report Exhibit: Summary of Students Taught the TIMSS Science Topics

Report Location: 5.6 Science

Questionnaire Location: TQ1_36Ba-n

Source Variable: AT4STI12 to AT4STI25

Procedure: Based on responses to the following question in the Teacher Questionnaire:

The following list includes the main topics addressed by the TIMSS science test. Choose the response that best describes when the <fourthgrade> students in the TIMSS class have been taught each topic. If a topic was taught half this year but not yet completed, please choose "Mostly taught this year." If a topic is not in the curriculum, please choose "Not yet taught or just introduced."
PHYSICAL SCIENCE topics (TQ1_36Ba-n; AT4STI12, AT4STI13, AT4STI14 AT4STI15, AT4STI16, AT4STI17, AT4STI18, AT4STI19, AT4STI20, AT4STI21, AT4STI22, AT4STI23, AT4STI124, AT4STI25);

Response options: Mostly taught before this year = 1; Mostly taught this year = 2; Not yet taught or just introduced=3

Compute the percentage of students whose teachers responded "Mostly Taught Before This Year" OR "Mostly Taught This Year" for the individual topics. Following this compute the average across the percentages of students taught all PHYSICAL SCIENCE topics mostly before this year or this year.

The derived variable is coded "MISSING" if there are more than one-third of the source questions with invalid data.

Trend Comments:

Derived Variable Name: atdstpes	**Variable Label:** Summ Students Taught Eart Science Topics	**Grade:** Fourth

Title of International Report Exhibit:	Summary of Students Taught the TIMSS Science Topics
Report Location:	5.6 Science
Questionnaire Location:	TQ1_36Ca-j
Source Variable:	AT4STI26 to AT4STI35

Procedure:

Based on responses to the following question in the Teacher Questionnaire:

The following list includes the main topics addressed by the TIMSS science test. Choose the response that best describes when the <fourthgrade> students in the TIMSS class have been taught each topic. If a topic was taught half this year but not yet completed, please choose "Mostly taught this year." If a topic is not in the curriculum, please choose "Not yet taught or just introduced."

EARTH SCIENCE topics (TQ1_36Ca-j; AT4STI26, AT4STI27, AT4STI28, AT4STI29, AT4STI30, AT4STI31, AT4STI32, AT4STI33, AT4STI134, AT4STI35)

Response options: Mostly taught before this year = 1; Mostly taught this year = 2; Not yet taught or just introduced=3

Compute the percentage of students whose teachers responded "Mostly Taught Before This Year" OR "Mostly Taught This Year" for the individual topics. Following this compute the average across the percentages of students taught all EARTH SCIENCE topics mostly before this year or this year.

The derived variable is coded "MISSING" if there are more than one-third of the source questions with invalid data.

Trend Comments:

Derived Variable Name: atdstpov   **Variable Label:** Summ Students Taught Overall Sci Topics   **Grade:** Fourth

Title of International Report Exhibit:	Summary of Students Taught the TIMSS Science Topics
Report Location:	5.6 Science
Questionnaire Location:	TQ1_36Aa-k; TQ1_36Ba-n; TQ1_36Ca-j
Source Variable:	AT4STI01 to AT4STI11; AT4STI12 to AT4STI25; AT4STI26 to AT4STI35

Procedure: Based on responses to the following question in the Teacher Questionnaire:

The following list includes the main topics addressed by the TIMSS science test. Choose the response that best describes when the <fourthgrade> students in the TIMSS class have been taught each topic. If a topic was taught half this year but not yet completed, please choose "Mostly taught this year." If a topic is not in the curriculum, please choose "Not yet taught or just introduced."

A. LIFE SCIENCE topics (TQ1_36Aa-k; AT4STI01, AT4STI02, AT4STI03, AT4STI04, AT4STI05, AT4STI06, AT4STI07, AT4STI08, AT4STI09, AT4STI10, AT4STI11)

B. PHYSICAL SCIENCE topics (TQ1_36Ba-n; AT4STI12, AT4STI13, AT4STI14, AT4STI15, AT4STI16, AT4STI17, AT4STI18, AT4STI19, AT4STI20, AT4STI21, AT4STI22, AT4STI23, AT4STI124, AT4STI25)

C. EARTH SCIENCE topics (TQ1_36Ca-j; AT4STI26, AT4STI27, AT4STI28, AT4STI29, AT4STI30, AT4STI31, AT4STI32, AT4STI33, AT4STI134, AT4STI35)

Response options: Mostly taught before this year = 1; Mostly taught this year = 2; Not yet taught or just introduced=3

Compute the percentage of students whose teachers responded "Mostly Taught Before This Year" OR "Mostly Taught This Year" for the individual topics. Following this compute the average across the percentages of students taught all SCIENCE topics mostly before this year or this year.

The derived variable is coded "MISSING" if there are more than one-third of the source questions with invalid data.

Trend Comments:

Derived Variable Name: atdmprep	**Variable Label:** Teachers' Math Educational Emphasis	**Grade:** Fourth

Title of International Report Exhibit: Teachers' Educational Emphasis on Mathematics and Teaching

Report Location: 6.3 Math

Questionnaire Location: TQ1_6Aa-e; TQ1_6Ba-b

Source Variable: AT4GPSEP, AT4GPSES, AT4MPSMA, AT4SPSSC, AT4GPSOT, AT4MEDMA, AT4SEDSC

Procedure: Based on responses to the following question in the Teacher Questionnaire:

During your <post-secondary education>, what was your major or main area(s) of study?

Education - <Primary/Elementary> (TQ1_6Aa, AT4GPSEP)

Education - Secondary (TQ1_6Ab, AT4GPSES)

Mathematics (TQ1_6Ac, AT4MPSMA)

Science (TQ1_6Ad, AT4SPSSC)

Other (TQ1_6Ae, AT4GPSOT)

Response options: Yes = 1; No = 2

If your major or main area of study was education, did you have a <specialization> in any of the following?

Mathematics (TQ1_6Ba, AT4MEDMA)

Science (TQ1_6Bb, AT4SEDSC)

Language/reading (TQ1_6Bc, AT4GEDLR)

Other subjects (TQ1_6Bd, AT4GEDOT)

Response options: Yes = 1; No = 2

(AT4GEDLR and AT4GEDOT are not used in the computation of the derived variable)

1 = Primary/Elementary Education with a Major or Specialization in Mathematics = Responded "Yes" to AT4GPSEP and responded "Yes" to AT4MPSMA or AT4MEDMA

2 = Primary/Elementary Education with a Major or Specialization in Science but not in Mathematics = Not in category 1 and responded "Yes" to AT4GPSEP and responded "Yes" to AT4SPSSC or AT4SEDSC

3 = Mathematics or Science Major without a Major or Specialization in Primary/Elementary Education = Not in categories 1 and 2 and responded "Yes" to AT4MPSMA or AT4SPSSC or AT4MEDMA or AT4SEDSC

4 = Primary/Elementary Education without a Major or Specialization in Mathematics or Science = Not in categories 1,2 and 3 and responded "Yes" to AT4GPSEP.

5. All other valid cases not in categories 1, 2, 3 and 4

The derived variable is coded "MISSING" if all the source questions in Part A (AT4GPSEP, AT4GPSES, AT4MPSMA, AT4SPSSC, AT4GPSOT) are with invalid data.

Trend Comments: Released in 2003.

Derived Variable Name: atdsprep	**Variable Label:** Teachers' Science Educational Emphasis	**Grade:** Fourth

Title of International Report Exhibit:	Teachers' Educational Emphasis on Science and Teaching

Report Location:	6.3 Science

Questionnaire Location:	TQ1_6Aa-e; TQ1_6Ba-b

Source Variable:	AT4GPSEP, AT4GPSES, AT4MPSMA, AT4SPSSC, AT4GPSOT, AT4MEDMA, AT4SEDSC

Procedure:	Based on responses to the following question in the Teacher Questionnaire:

During your <post-secondary education>, what was your major or main area(s) of study?

Education - <Primary/Elementary> (TQ1_6Aa, AT4GPSEP)

Education - Secondary (TQ1_6Ab, AT4GPSES)

Mathematics (TQ1_6Ac, AT4MPSMA)

Science (TQ1_6Ad, AT4SPSSC)

Other (TQ1_6Ae, AT4GPSOT)

Response options: Yes = 1; No = 2

If your major or main area of study was education, did you have a <specialization> in any of the following?

Mathematics (TQ1_6Ba, AT4MEDMA)

Science (TQ1_6Bb, AT4SEDSC)

Language/reading (TQ1_6Bc, AT4GEDLR)

Other subjects (TQ1_6Bd, AT4GEDOT)

Response options: Yes = 1; No = 2

(AT4GEDLR and AT4GEDOT are not used in the computation of the derived variable)

1 = Primary/Elementary Education with a Major or Specialization in Science = Responded "Yes" to AT4GPSEP and responded "Yes" to AT4SPSSC or AT4SEDSC

2 = Primary/Elementary Education with a Major or Specialization in Mathematics but not in Science = Not in category 1 and responded "Yes" to AT4GPSEP and responded "Yes" to AT4MPSMA or AT4MEDMA

3 = Science or Mathematics Major without a Major or Specialization in Primary/Elementary Education = Not in categories 1 and 2 and responded "Yes" to AT4MPSMA or AT4SPSSC or AT4MEDMA or AT4SEDSC

4 = Primary/Elementary Education without a Major or Specialization in Science or Mathematics = Not in categories 1,2 and 3 and responded "Yes" to AT4GPSEP.

5. All other valid cases not in categories 1, 2, 3 and 4

The derived variable is coded "MISSING" if all the source questions in Part A (AT4GPSEP, AT4GPSES, AT4MPSMA, AT4SPSSC, AT4GPSOT) are with invalid data.

Trend Comments:	Released in 2003.

Derived Variable Name: atdgcoll	**Variable Label:** Freq of Collaboration Among Teachers	**Grade:** Fourth

Title of International Report Exhibit:

Frequency of Collaboration Among Mathematics Teachers with Trends

Frequency of Collaboration Among Science Teachers with Trends

Report Location:

6.5 Math

6.6 Science

Questionnaire Location: TQ1_7a,b,c,d

Source Variable: AT4GOTDC, AT4GOTPM, AT4GOTVT, AT4GOTAT

Procedure:

Based on responses to the following question in the Teacher Questionnaire:

How often do you have the following types of interactions with other teachers?

Discussions about how to teach a particular concept (TQ1_7a, AT4GOTDC)

Working on preparing instructional materials (TQ1_7b, AT4GOTPM)

Visits to another teacher's classroom to observe his/her teaching (TQ1_7c, AT4GOTVT)

Informal observations of my classroom by another teacher (TQ1_7d, AT4GOTAT)

Response options: Never or almost never = 1; 2 or 3 times per month = 2; 1-3 times per week = 3; Daily or almost daily = 4

1 = Never or Almost Never = Average is less than or equal to 1.4

2 = 2 or 3 Times per Month = Average is greater than 1.4 and less than or equal to 2.4

3 = At Least Weekly = Average is more than 2.4

The derived variable is coded "MISSING" if there are 2 or more questions with invalid data.

Trend Comments: Trends reported to 2003 in TIMSS 2007 international reports, but variable not released in previous cycles.

Derived Variable Name: atdmttnu	Variable Label: Tchs Feel Very Well Prepd On Numb Topics	Grade: Fourth

Title of International Report Exhibit:

Summary of Students Whose Teachers Feel "Very Well" Prepared to Teach the TIMSS Mathematics Topics

Report Location:

6.6 Math

Questionnaire Location: TQ1_11Aa-j

Source Variable:

AT4MTT01 to AT4MTT10

Procedure:

Based on responses to the following question in the Teacher Questionnaire:

How well prepared do you feel you are to teach the following mathematics topics?

NUMBER topics (TQ1_11Aa-j; AT4MTT01, AT4MTT02, AT4MTT03, AT4MTT04, AT4MTT05, AT4MTT06, AT4MTT07, AT4MTT08, AT4MTT09, AT4MTT10)

Response options: Not applicable = 1; Very well prepared = 2; Somewhat prepared = 3; Not well prepared = 4

Compute the percentage of students whose teachers responded "Very well prepared" for the individual topics. Following this compute the average across the percentages of students whose teachers indicate feeling very well prepared to teach all NUMBER topics.

The derived variable is coded "MISSING" if there are more than one-third of the source questions with invalid data or teachers responded "Not applicable."

Trend Comments:

Derived Variable Name: atdmttge	**Variable Label:** Tchs Feel Very Well Prepd On Geom Topics	**Grade:** Fourth

Title of International Report Exhibit:

Summary of Students Whose Teachers Feel "Very Well" Prepared to Teach the TIMSS Mathematics Topics

Report Location:

6.6 Math

Questionnaire Location: TQ1_11Ba-g

Source Variable:

AT4MTT11 to AT4MTT17

Procedure:

Based on responses to the following question in the Teacher Questionnaire:

How well prepared do you feel you are to teach the following mathematics topics?
GEOMETRIC SHAPES AND MEASURES topics (TQ1_11Ba-g; AT4MTT11, AT4MTT12, AT4MTT13, AT4MTT14, AT4MTT15, AT4MTT16, AT4MTT17)

Response options: Not applicable = 1; Very well prepared = 2; Somewhat prepared = 3; Not well prepared = 4

Compute the percentage of students whose teachers responded "Very well prepared" for the individual topics. Following this compute the average across the percentages of students whose teachers indicate feeling very well prepared to teach all GEOMETRIC SHAPES AND MEASURES topics.

The derived variable is coded "MISSING" if there are more than one-third of the source questions with invalid data or teachers responded "Not applicable."

Trend Comments:

Derived Variable Name: atdmttda	**Variable Label:** Tchs Feel Very Well Prepd On Data Topics	**Grade:** Fourth

Title of International Report Exhibit:	Summary of Students Whose Teachers Feel "Very Well" Prepared to Teach the TIMSS Mathematics Topics
Report Location:	6.6 Math
Questionnaire Location:	TQ1_11Ca-c
Source Variable:	AT4MTT18 to AT4MTT20
Procedure:	Based on responses to the following question in the Teacher Questionnaire:

How well prepared do you feel you are to teach the following mathematics topics?
DATA DISPLAY topics (TQ1_11Ca-c; AT4MTT18, AT4MTT19, AT4MTT20)

Response options: Not applicable = 1; Very well prepared = 2; Somewhat prepared = 3; Not well prepared = 4

Compute the percentage of students whose teachers responded "Very well prepared" for the individual topics. Following this compute the average across the percentages of students whose teachers indicate feeling very well prepared to teach all DATA DISPLAY topics.

The derived variable is coded "MISSING" if there are more than one-third of the source questions with invalid data or teachers responded "Not applicable."

Trend Comments:

Derived Variable Name: atdmttov	**Variable Label:** Tchs Feel Very Well Prepd On Math Topics	**Grade:** Fourth

Title of International Report Exhibit: Summary of Students Whose Teachers Feel "Very Well" Prepared to Teach the TIMSS Mathematics Topics

Report Location: 6.6 Math

Questionnaire Location: TQ1_11Aa-j; TQ1_11Ba-g; TQ1_11Ca-c

Source Variable: AT4MTT01 to AT4MTT10; AT4MTT11 to AT4MTT17; AT4MTT18 to AT4MTT20

Procedure: Based on responses to the following question in the Teacher Questionnaire:

How well prepared do you feel you are to teach the following mathematics topics?

A. NUMBER topics (TQ1_11Aa-j; AT4MTT01, AT4MTT02, AT4MTT03, AT4MTT04, AT4MTT05, AT4MTT06, AT4MTT07, AT4MTT08, AT4MTT09, AT4MTT10)

B. GEOMETRIC SHAPES AND MEASURES topics (TQ1_11Ba-g; AT4MTT11, AT4MTT12, AT4MTT13, AT4MTT14, AT4MTT15, AT4MTT16, AT4MTT17)

C. DATA DISPLAY topics (TQ1_11Ca-c; AT4MTT18, AT4MTT19, AT4MTT20)

Response options: Not applicable = 1; Very well prepared = 2; Somewhat prepared = 3; Not well prepared = 4

Compute the percentage of students whose teachers responded "Very well prepared" for the individual topics. Following this compute the average across the percentages of students whose teachers indicate feeling very well prepared to teach all MATHEMATICS topics.

The derived variable is coded "MISSING" if there are more than one-third of the source questions with invalid data or teachers responded "Not applicable."

Trend Comments:

Derived Variable Name: atdsptli	**Variable Label:** Tchs Feel Very Well Prepd On LSci Topics	**Grade:** Fourth

Title of International Report Exhibit:
Summary of Students Whose Teachers Feel "Very Well" Prepared to Teach the TIMSS Science Topics

Report Location:
6.7 Science

Questionnaire Location: TQ1_28Aa-f

Source Variable:
AT4SPT01 to AT4SPT06

Procedure:
Based on responses to the following question in the Teacher Questionnaire:

How well prepared do you feel you are to teach the following science topics?

LIFE SCIENCE topics (TQ1_28Aa-f; AT4SPT01, AT4SPT02, AT4SPT03, AT4SPT04, AT4SPT05, AT4SPT06)

Response options: Not applicable = 1; Very well prepared = 2; Somewhat prepared = 3; Not well prepared = 4

Compute the percentage of students whose teachers responded "Very well prepared" for the individual topics. Following this compute the average across the percentages of students whose teachers indicate feeling very well prepared to teach all LIFE SCIENCE topics.

The derived variable is coded "MISSING" if there are more than one-third of the source questions with invalid data or teachers responded "Not applicable."

Trend Comments:

Derived Variable Name: atdsptps	**Variable Label:** Tchs Feel Very Well Prepd On PSci Topics	**Grade:** Fourth

Title of International Report Exhibit: Summary of Students Whose Teachers Feel "Very Well" Prepared to Teach the TIMSS Science Topics

Report Location: 6.7 Science

Questionnaire Location: TQ1_28Ba-i

Source Variable: AT4SPT07 to AT4SPT15

Procedure: Based on responses to the following question in the Teacher Questionnaire:

How well prepared do you feel you are to teach the following science topics?

PHYSICAL SCIENCE topics (TQ1_28Ba-i; AT4SPT07, AT4SPT08, AT4SPT09, AT4SPT10, AT4SPT11, AT4SPT12, AT4SPT13, AT4SPT14, AT4SPT15)

Response options: Not applicable = 1; Very well prepared = 2; Somewhat prepared = 3; Not well prepared = 4

Compute the percentage of students whose teachers responded "Very well prepared" for the individual topics. Following this compute the average across the percentages of students whose teachers indicate feeling very well prepared to teach all PHYSICAL SCIENCE topics.

The derived variable is coded "MISSING" if there are more than one-third of the source questions with invalid data or teachers responded "Not applicable."

Trend Comments:

Derived Variable Name: atdsptes   **Variable Label:** Tchs Feel Very Well Prepd On ESci Topics   **Grade:** Fourth

Title of International Report Exhibit:	Summary of Students Whose Teachers Feel "Very Well" Prepared to Teach the TIMSS Science Topics
Report Location:	6.7 Science
Questionnaire Location:	TQ1_28Ca-g
Source Variable:	AT4SPT16 to AT4SPT22

Procedure:

Based on responses to the following question in the Teacher Questionnaire:

How well prepared do you feel you are to teach the following science topics?

EARTH SCIENCE topics (TQ1_28Ca-g; AT4SPT16, AT4SPT17, AT4SPT18, AT4SPT19, AT4SPT20, AT4SPT21, AT4SPT22)

Response options: Not applicable = 1; Very well prepared = 2; Somewhat prepared = 3; Not well prepared = 4

Compute the percentage of students whose teachers responded "Very well prepared" for the individual topics. Following this compute the average across the percentages of students whose teachers indicate feeling very well prepared to teach all EARTH SCIENCE topics.

The derived variable is coded "MISSING" if there are more than one-third of the source questions with invalid data or teachers responded "Not applicable."

Trend Comments:

Derived Variable Name: atdsptov	**Variable Label:** Tchs Feel Very Well Prepd On Sci Topics	**Grade:** Fourth

Title of International Report Exhibit:
Summary of Students Whose Teachers Feel "Very Well" Prepared to Teach the TIMSS Science Topics

Report Location:
6.7 Science

Questionnaire Location: TQ1_28Aa-f; TQ1_28Ba-i; TQ1_28Ca-g

Source Variable:
AT4SPT01 to AT4SPT06; AT4SPT07 to AT4SPT15; AT4SPT16 to AT4SPT22

Procedure:
Based on responses to the following question in the Teacher Questionnaire:

How well prepared do you feel you are to teach the following science topics?

A. LIFE SCIENCE topics (TQ1_28Aa-f; AT4SPT01, AT4SPT02, AT4SPT03, AT4SPT04, AT4SPT05, AT4SPT06)

B. PHYSICAL SCIENCE topics (TQ1_28Ba-i; AT4SPT07, AT4SPT08, AT4SPT09, AT4SPT10, AT4SPT11, AT4SPT12, AT4SPT13, AT4SPT14, AT4SPT15)

C. EARTH SCIENCE topics (TQ1_28Ca-g; AT4SPT16, AT4SPT17, AT4SPT18, AT4SPT19, AT4SPT20, AT4SPT21, AT4SPT22)

Response options: Not applicable = 1; Very well prepared = 2; Somewhat prepared = 3; Not well prepared = 4

Compute the percentage of students whose teachers responded "Very well prepared" for the individual topics. Following this compute the average across the percentages of students whose teachers indicate feeling very well prepared to teach all SCIENCE topics.

The derived variable is coded "MISSING" if there are more than one-third of the source questions with invalid data or teachers responded "Not applicable."

Trend Comments:

Derived Variable Name: atdmstud	**Variable Label:** Class Size for Mathematics Instruction	**Grade:** Fourth

Title of International Report Exhibit: Class Size for Mathematics Instruction with Trends;
Achievement and Class Size for Mathematics Instruction

Report Location: 7.1; 7.2 Math

Questionnaire Location: TQ1_12A

Source Variable: AT4MSTUD

Procedure: Based on responses to the following question in the Teacher Questionnaire:

How many students are in the TIMSS class for mathematics? (TQ1_12A, AT4MSTUD)

1 = 1-19 Students

2 = 20-32 Students

3 = 33 or More Students

Trend Comments: Released in 2003.

| **Derived Variable Name:** atdsstud | **Variable Label:** Class Size for Science Instruction | **Grade:** Fourth |

Title of International Report Exhibit:
Class Size for Science Instruction with Trends;
Achievement and Class Size for Science Instruction

Report Location: 7.1; 7.2 Science

Questionnaire Location: TQ1_29A

Source Variable: AT4SSTUD

Procedure: Based on responses to the following question in the Teacher Questionnaire:

How many students are in the TIMSS class for science? (TQ1_29A, AT4SSTUD)

1 = 1-19 Students

2 = 20-32 Students

3 = 33 or More Students

Trend Comments: Released in 2003.

Derived Variable Name: atdmcfl	**Variable Label:** Idx Tch Rpt Mth Clss WO Lim Fctrs (MCFL)	**Grade:** Fourth

Title of International Report Exhibit:
Index of Teachers' Reports on Teaching Mathematics Classes with Few or No Limitations on Instruction Due to Student Factors (MCFL)

Report Location:
7.3 Math

Questionnaire Location: TQ1_26a,b,c,d,e

Source Variable:
AT4MVMSA, AT4MVMSW, AT4MVMSS, AT4MVMUS, AT4MVMDS

Procedure:
Based on responses to the following question in the Teacher Questionnaire:

In your view, to what extent do the following limit how you teach mathematics to the TIMSS class?

Students with different academic abilities (TQ1_26a, AT4MVMSA)

Students who come from a wide range of backgrounds (TQ1_26b, AT4MVMSW)

Students with special needs (TQ1_26c, AT4MVMSS)

Uninterested students (TQ1_26d, AT4MVMUS)

Disruptive students (TQ1_26e, AT4MVMDS)

Response options: Not applicable = 1; Not at all = 2; A little = 3; Some = 4; A lot = 5

(Recode "not applicable"/"not at all" to 1, "a little" to 2, "Some" to 3; "a lot" to 4)

1 = High = Average is less than or equal to 2

2 = Medium = Average is greater than 2 and less than 3

3 = Low = Average is greater than or equal to 3

The index is coded missing if there are 2 or more questions with invalid data.

Trend Comments:

Derived Variable Name: atdscfl	**Variable Label:** Idx Tch Rpt Sci Clss WO Lim Fctrs (SCFL)	**Grade:** Fourth

Title of International Report Exhibit:	Index of Teachers' Reports on Teaching Science Classes with Few or No Limitations on Instruction Due to Student Factors (SCFL)
Report Location:	7.3 Science
Questionnaire Location:	TQ1_40a,b,c,d,e
Source Variable:	AT4SVSSA, AT4SVSSW, AT4SVSSS, AT4SVSUS, AT4SVSDS
Procedure:	Based on responses to the following question in the Teacher Questionnaire:

In your view, to what extent do the following limit how you teach science to the TIMSS class?

Students with different academic abilities (TQ1_40a, AT4SVSSA)

Students who come from a wide range of backgrounds (TQ1_40b, AT4SVSSW)

Students with special needs (TQ1_40c, AT4SVSSS)

Uninterested students (TQ1_40d, AT4SVSUS)

Disruptive students (TQ1_40e, AT4SVSDS)

Response options: Not applicable = 1; Not at all = 2; A little = 3; Some = 4; A lot = 5

(Recode "not applicable"/"not at all" to 1, "a little" to 2, "Some" to 3; "a lot" to 4)

1 = High = Average is less than or equal to 2

2 = Medium = Average is greater than 2 and less than 3

3 = Low = Average is greater than or equal to 3

The index is coded missing if there are 2 or more questions with invalid data.

Trend Comments:

Derived Variable Name: atdmemh	**Variable Label:** Idx Tchr Emphasis on Math Homework (EMH)	**Grade:** Fourth

Title of International Report Exhibit:	Index of Teachers' Emphasis on Mathematics Homework (EMH) with Trends

Report Location:	7.12 Math

Questionnaire Location:	TQ1_23; TQ1_24; TQ1_25

Source Variable:	AT4MHMWO, AT4MHWMC, AT4MHWKM

Procedure: Based on responses to the following question in the Teacher Questionnaire:

Do you assign mathematics homework to the <fourth-grade> students in the TIMSS class? (TQ1_23, AT4MHMWO)
Response options: Yes = 1; No = 2

How often do you usually assign mathematics homework to the <fourth-grade> students in the TIMSS class? (TQ1_24, AT4MHWMC)
Response options: Every or almost every lesson = 1; About half the lessons = 2; Some lessons = 3

When you assign mathematics homework to the <TIMSS class>, about how many minutes do you usually assign? (Consider the time it would take an average student in your class.) (TQ1_25, AT4MHWKM)
Response options: Fewer than 15 minutes = 1; 15-30 minutes = 2; 31-60 minutes = 3; 61-90 minutes = 4; More than 90 minutes = 5

1 = High = Responded other than "No" to AT4MHMWO and responded "every or almost every lesson" or "about half the lessons" to AT4MHWMC and "31-60 minutes" or "61-90 minutes" or "More than 90 minutes" to AT4MHWKM
2 = Medium = All other response combinations
3 = Low = Responded "No" to AT4MHMWO or responded other than "No" to AT4MHMWO and "about half the lessons" or "some lessons" to AT4MHWMC and "Fewer than 15 minutes" or "15-30 minutes" to AT4MHWKM

The index is coded as missing if AT4MHWMC or AT4MHWKM are "MISSING".

Trend Comments: Released in 2003 as atdmh.

Derived Variable Name: atdsesh	**Variable Label:** Idx Tchr Emphasis on Sci Homework (ESH)	**Grade:** Fourth

Title of International Report Exhibit: Index of Teachers' Emphasis on Science Homework (ESH) with Trends

Report Location: 7.11 Science

Questionnaire Location: TQ1_37; TQ1_38; TQ1_39

Source Variable: AT4SHMWO, AT4SHWMC, AT4SHWKM

Procedure: Based on responses to the following question in the Teacher Questionnaire:

Do you assign science homework to the <fourth-grade> students in the TIMSS class? (TQ1_37, AT4SHMWO)
Response options: Yes = 1; No = 2

How often do you usually assign science homework to the <fourthgrade> students in the TIMSS class? (TQ1_38, AT4SHWMC)
Response options: Every lesson or almost every lesson = 1; About half the lessons = 2; Some lessons = 3

When you assign science homework to the <TIMSS class>, about how many minutes do you usually assign? (Consider the time it would take an average student in your class.) (TQ1_39, AT4SHWKM)
Response options: Fewer than 15 minutes = 1; 15-30 minutes = 2; 31-60 minutes = 3; 61-90 minutes = 4; More than 90 minutes = 5

1 = High = Responded other than "No" to AT4SHMWO and responded "every or almost every lesson" or "about half the lessons" to AT4SHWMC and "31-60 minutes" or "61-90 minutes" or "More than 90 minutes" to AT4SHWKM
2 = Medium = All other response combinations
3 = Low = Responded "No" to AT4SHMWO or responded other than "No" to AT4SHMWO and "about half the lessons" or "some lessons" to AT4SHWMC and "Fewer than 15 minutes" or "15-30 minutes" to AT4SHWKM

The index is coded as missing if AT4SHWMC or AT4SHWKM are "MISSING".

Trend Comments: Released in 2003 as atdsh.

Derived Variable Name: atdmtawc   **Variable Label:** Idx MathT Adequate Work Cond (M-TAWC)   **Grade:** Fourth

Title of International Report Exhibit:	Index of Teachers' Adequate Working Conditions (TAWC)
Report Location:	8.9 Math
Questionnaire Location:	TQ1_9a,b,c
Source Variable:	AT4GSPBR, AT4GSPCO, AT4GSPWO

Procedure: Based on responses to the following question in the Teacher Questionnaire:

In your current school, how severe is each problem?

The school building needs significant repair (TQ1_9a, AT4GSPBR)

Classrooms are overcrowded (TQ1_9b, AT4GSPCO)

Teachers do not have adequate workspace outside their classroom (TQ1_9c, AT4GSPWO)

Response options: Not a problem = 1; Minor Problem=2; Serious Problem=3

1 = High = Average value is equal to 1

2 = Medium = Average value is greater than 1 and less than or equal to 2

3 = Low = Average value is more than 2

The index is coded as missing if there are 2 or more source questions with invalid data.

Trend Comments:

Derived Variable Name: atdstawc	**Variable Label:** Idx SciT Adequate Work Cond (S-TAWC)	**Grade:** Fourth

Title of International Report Exhibit:

Index of Teachers' Adequate Working Conditions (TAWC)

Report Location:

8.10 Science

Questionnaire Location: TQ1_9a,b,c,d

Source Variable:

AT4GSPBR, AT4GSPCO, AT4GSPWO, AT4GSPME

Procedure:

Based on responses to the following question in the Teacher Questionnaire:

In your current school, how severe is each problem?

The school building needs significant repair (TQ1_9a, AT4GSPBR)

Classrooms are overcrowded (TQ1_9b, AT4GSPCO)

Teachers do not have adequate workspace outside their classroom (TQ1_9c, AT4GSPWO)

Materials are not available to conduct experiments or investigations (TQ1_9d, AT4GSPME)

Response options: Not a problem = 1; Minor Problem = 2; Serious Problem = 3

1 = High = Average value is equal to 1

2 = Medium = Average value is greater than 1 and less than or equal to 2

3 = Low = Average value is more than 2

The index is coded as missing if there are 2 or more source questions with invalid data.

Trend Comments:

Derived Variable Name: atdgtpsc	**Variable Label:** Idx Tchrs Percept School Climate (TPSC)	**Grade:** Fourth

Title of International Report Exhibit:

Index of Mathematics Teachers' Perception of School Climate (TPSC) with Trends

Index of Science Teachers' Perception of School Climate (TPSC) with Trends

Report Location:

8.12 Math

8.13 Science

Questionnaire Location: TQ1_10a-h

Source Variable:

AT4GCHTS, AT4GCHTU, AT4GCHTC, AT4GCHES, AT4GCHPS, AT4GCHPI, AT4GCHSR, AT4GCHSD

Procedure:

Based on responses to the following question in the Teacher Questionnaire:

How would you characterize each of the following within your school?

Teachers' job satisfaction (TQ1_10a, AT4GCHTS)

Teachers' understanding of the school's curricular goals (TQ1_10b, AT4GCHTU)

Teachers' degree of success in implementing the school's curriculum (TQ1_10c, AT4GCHTC)

Teachers' expectations for student achievement (TQ1_10d, AT4GCHES)

Parental support for student achievement (TQ1_10e, AT4GCHPS)

Parental involvement in school activities (TQ1_10f, AT4GCHPI)

Students' regard for school property (TQ1_10g, AT4GCHSR)

Students' desire to do well in school (TQ1_10h, AT4GCHSD)

Response options: Very high = 1; High = 2; Medium = 3; Low = 4; Very low = 5

1 = High = Average value is less than or equal to 2

2 = Medium = Average value is greater than 2 and less than or equal to 3

3 = Low = Average value is greater than 3

The index is coded as missing if there are 3 or more source questions with invalid data.

Trend Comments:

Released in 2003 as atdgch.

Derived Variable Name: atdgtpss	**Variable Label:** Idx Teacher Prcptn School Safety (TPSS)	**Grade:** Fourth

Title of International Report Exhibit:

Index of Mathematics Teachers' Perception of Safety in School (TPSS) with Trends

Index of Science Teachers' Perception of Safety in Schools (TPSS) with Trends

Report Location:

8.13 Math

8.14 Science

Questionnaire Location: TQ1_8a,b,c

Source Variable:

AT4GCUSN, AT4GCUSA, AT4GCUAS

Procedure:

Based on responses to the following question in the Teacher Questionnaire:

Thinking about your current school, indicate the extent to which you agree or disagree with each of the following statements.

This school is located in a safe neighborhood (TQ1_8a, AT4GCUSN)

I feel safe at this school (TQ1_8b, AT4GCUSA)

This school's security policies and practices are sufficient (TQ1_8c, AT4GCUAS)

Response options: Agree a lot = 1; Agree = 2; Disagree = 3; Disagree a lot = 4

1 = High = Responded "Agree a lot" or "agree" to all three statements

2 = Medium = All other combinations

3 = Low = Responded "Disagree" or "Disagree a lot" to all three statements

The index is coded as missing if there are 2 or more source questions with invalid data.

Trend Comments:

Released in 2003 as atdgcu.

Fourth Grade
School Questionnaire

Section 3

Derived Variable Name: acdghw	**Variable Label:** Total Hours Instructional Time per Week	**Grade:** Fourth

Title of International Report Exhibit:

Weekly Intended and Implemented Instructional Time for Mathematics with Trends

Weekly Intended and Implemented Instructional Time for Science with Trends

Report Location:

5.1 Math

5.2 Science

Questionnaire Location: SCQ1_5Bab; SCQ1_5C

Source Variable: AC4GHTIT, AC4GMTIT, AC4GDSOI

Procedure: Based on responses to the following question in the School Questionnaire:

What is the total instructional time, excluding breaks, in a typical day?

A. Hours (SCQ1_5Ba, AC4GHTIT)

B. Minutes (SCQ1_5Bb, AC4GMTIT)

In one calendar week, how many days is the school open for instruction? (SCQ1_5C, AC4GDSOI)

Response options: 6 days = 1; 5 1/2 days =2; 5 days = 3; 4 1/2 days = 4; 4 days = 5; other = 6

The derived variable (hours of instructional time per week) is computed as follows:

Step 1: Recode AC4GDSOI as follows: 6 (Option 1) and 5 1/2 (Option 2) to 6, 5 (Option 3) and 4 1/2 (Option 4) to 5 and "Other" (Option 6) to "MISSING"

Step 2: Compute average total hours of instructional time per week: AC4GDSOI (recoded in Step 1) * [AC4GHTIT +(AC4GMTIT/60)]

Use AC4GHTIT if AC4GMTIT is "MISSING". Use AC4GMTIT/60 if AC4GHTIT is "MISSING".

Trend Comments: Trends reported to 2003 in TIMSS 2007 international reports, but variable not released in previous cycles.

Derived Variable Name: acdgas	**Variable Label:** Idx Good Attendance at School (GAS)	**Grade:** Fourth

Title of International Report Exhibit:	Index of Good Attendance at School (GAS); High Index of Good Attendance at School (GAS) with Trends

Report Location:	8.3; 8.4 Math and Science

Questionnaire Location:	SCQ1_17Aabc; SCQ1_17Babc

Source Variable:	AC4GFP01, AC4GFP02, AC4GFP03, AC4GSP01, AC4GSP02, AC4GSP03

Procedure:	Based on responses to the following question in the School Questionnaire:

How often does each of the following problem behaviors occur among <fourth-grade> students in your school? If the behavior occurs, how severe a problem does it present?

A. Frequency in your school
 Arriving late at school (SCQ1_17Aa, AC4GFP01)
 Absenteeism (i.e., unjustified absences) (SCQ1_17Ab, AC4GFP02)
 Skipping class <hours/periods> (SCQ1_17Ac, AC4GFP03)
Response options: never = 1; rarely = 2; monthly = 3; weekly = 4; daily = 5

B. Severity of problem in school
 Arriving late at school (SCQ1_17Ba, AC4GSP01)
 Absenteeism (i.e., unjustified absences) (SCQ1_17Bb, AC4GSP02)
 Skipping class <hours/periods> (SCQ1_17Bc, AC4GSP03)
Response options: not a problem = 1; minor problem = 2; serious problem = 3

1 = High = Responded "never" to AC4GFP01, AC4GFP02 and AC4GFP03 or "not a problem" to AC4GFP01, AC4GFP02 and AC4GFP03

2 = Medium = All other response combinations

3 = Low = Responded "serious problem" for two or three questions or responded "serious problem" for one question and "minor problem" for two questions or if there is one missing source variable and responded "serious problem" for the other two questions in Part B (AC4GSP01, AC4GSP02, AC4GSP03)

Coded as missing if there are 2 or 3 source questions in Part B (AC4GSP01, AC4GSP02, AC4GSP03) with invalid data.

Trend Comments:	Released in 2003 as acdgsp (Index of Good School and Class Attendance, GSCA).

| **Derived Variable Name:** acdsrmi | **Variable Label:** Idx Avlbl Schl Rsrcs Math Instrn (ASRMI) | **Grade:** Fourth |

Title of International Report Exhibit:
Index of Availability of School Resources for Mathematics Instruction (ASRMI);
High Index of Availability of School Resources for Mathematics Instruction (ASRMI) with Trends

Report Location: 8.7; 8.8 Math

Questionnaire Location: SCQ1_18a-e,g-k

Source Variable: AC4GST01, AC4GST02, AC4GST03, AC4GST04, AC4GST05, AC4GMT07, AC4GMT08, AC4GMT09, AC4GMT10, AC4GMT11

Procedure: Based on responses to the following question in the School Questionnaire:

Is your school's capacity to provide instruction affected by a shortage or inadequacy of any of the following?

Instructional materials (e.g., textbook) (SCQ1_18a, AC4GST01)

Budget for supplies (e.g., paper, pencils) (SCQ1_18b, AC4GST02)

School buildings and grounds (SCQ1_18c, AC4GST03)

Heating/cooling and lighting systems (SCQ1_18d, AC4GST04)

Instructional space (e.g., classrooms) (SCQ1_18e, AC4GST05)

Computers for mathematics instruction (SCQ1_18g, AC4GMT07)

Computer software for mathematics instruction (SCQ1_18h, AC4GMT08)

Calculators for mathematics instruction (SCQ1_18i, AC4GMT09)

Library materials relevant to mathematics instruction (SCQ1_18j, AC4GMT10)

Audio-visual resources for mathematics instruction (SCQ1_18k, AC4GMT11)

Response options: none = 1; a little = 2; some = 3; a lot = 4

The index is computed by averaging the responses to the ten source questions.

1 = High = Average of AC4GST01 to AC4GST05 is less than 2 and the average of AC4GMT07 to AC4GMT11 is less than 2

2 = Medium = All other response combinations

3 = Low = Average of AC4GST01 to AC4GST05 is greater than or equal to 3 and the average of AC4GMT07 to AC4GMT11 is greater than or equal to 3

The index is coded as missing if there are 2 or more source questions of AC4GST01 to AC4GST05 with invalid data OR 2 or more source questions of AC4GMT07 to AC4GMT11 with invalid data.

Trend Comments: Released in 2003 as acdmasr. Trends also reported to 1995 in TIMSS 2007 international reports (please refer to TIMSS 1995 User Guide for the International Database).

Derived Variable Name: acdsrsi   **Variable Label:** Idx Avlbl Schl Rsrcs Sci Instrn (ASRSI)   **Grade:** Fourth

Title of International Report Exhibit:	Index of Availability of School Resources for Science Instruction (ASRSI); High Index of Availability of School Resources for Science Instruction (ASRSI) with Trends
Report Location:	8.7; 8.8 Science
Questionnaire Location:	SCQ1_18a-e, l-q
Source Variable:	AC4GST01, AC4GST02, AC4GST03, AC4GST04, AC4GST05, AC4SST12, AC4SST13, AC4SST14, AC4SST15, AC4SST16, AC4SST17
Procedure:	Based on responses to the following question in the School Questionnaire:

Is your school's capacity to provide instruction affected by a shortage or inadequacy of any of the following?

Instructional materials (e.g., textbook) (SCQ1_18a, AC4GST01)

Budget for supplies (e.g., paper, pencils) (SCQ1_18b, AC4GST02)

School buildings and grounds (SCQ1_18c, AC4GST03)

Heating/cooling and lighting systems (SCQ1_18d, AC4GST04)

Instructional space (e.g., classrooms) (SCQ1_18e, AC4GST05)

Science laboratory equipment and materials (SCQ1_18l, AC4SST12)

Computers for science instruction (SCQ1_18m, AC4SST13)

Computer software for science instruction (SCQ2_19n, AC4SST14)

Calculators for science instruction (SCQ1_18o, AC4SST15)

Library materials relevant to science instruction (SCQ1_18p, AC4SST16)

Audio-visual resources for science instruction (SCQ1_18q, AC4SST17)

Response options: none = 1; a little = 2; some = 3; a lot = 4

The index is computed by averaging the responses to the eleven source questions.

1 = High = Average of AC4GST01 to AC4GST05 is less than 2 and the average of AC4SST12 to AC4SST17 is less than 2

2 = Medium = All other response combinations

3 = Low = Average of AC4GST01 to AC4GST05 is greater than or equal to 3 and the average of AC4SST12 to AC4SST17 is greater than or equal to 3

The index is coded as missing if there are 2 or more source questions of AC4GST01 to AC4GST05 with invalid data OR 2 or more source questions of AC4SST12 to AC4SST17 with invalid data.

Trend Comments:	Released in 2003 as acdmasr. Trends also reported to 1995 in TIMSS 2007 international reports (please refer to TIMSS 1995 User Guide for the International Database).

Derived Variable Name: acdgppsc   **Variable Label:** Idx Prncpl Percept School Climate (PPSC)   **Grade:** Fourth

Title of International Report Exhibit:	Index of Principals' Perception of School Climate (PPSC) with Trends
Report Location:	8.11 Math
	8.12 Science
Questionnaire Location:	SCQ1_8a-h
Source Variable:	AC4GCHTS, AC4GCHTU, AC4GCHTC, AC4GCHES, AC4GCHPS, AC4GCHPI, AC4GCHSR, AC4GCHSD

Procedure: Based on responses to the following question in the School Questionnaire:

How would you characterize each of the following within your school?

Teachers' job satisfaction (SCQ1_8a, AC4GCHTS)

Teachers' understanding of the school's curricular goals (SCQ1_8b, AC4GCHTU)

Teachers' degree of success in implementing the school's curriculum (SCQ1_8c, AC4GCHTC)

Teachers' expectations for student achievement (SCQ1_8d, AC4GCHES)

Parental support for student achievement (SCQ1_8e, AC4GCHPS)

Parental involvement in school activities (SCQ1_8f, AC4GCHPI)

Students' regard for school property (SCQ1_8g, AC4GCHSR)

Students' desire to do well in school (SCQ1_8h, AC4GCHSD)

Response options: very high = 1; high = 2; medium = 3, low = 4, very low = 5

The index is computed by averaging the responses to the eight source questions:

1 = High = Average is less than or equal to 2

2 = Medium = Average is greater than 2 and less than or equal to 3

3 = Low = Average is greater than 3

The index is coded as missing if there are 3 or more source questions with invalid data.

Trend Comments: Released in 2003 as acdgpsc.

Eighth Grade
Student Questionnaire

Section 4

Derived Variable Name: bsdgedup	**Variable Label:** Parents' Highest Education Level	**Grade:** Eighth

Title of International Report Exhibit:
Highest Level of Education of Either Parent

Report Location:
4.1 Math and Science

Questionnaire Location: SQ2_6A,B or SQ2S_6A,B

Source Variable:
BS4GMFED, BS4GFMED

Procedure:
Based on responses to the following questions in the Student Questionnaire:

What is the highest level of education completed by your mother (or stepmother or female guardian)? (SQ2_6A or SQ2S_6A, BS4GMFED)

What is the highest level of education completed by your father (or stepfather or male guardian)? (SQ2_6B or SQ2S_6B, BS4GFMED)

Response options: Some <ISCED Level 1or 2> or did not go to school = 1; <ISCED 2> = 2; <ISCED 3> = 3; <ISCED 4> = 4; <ISCED 5B> = 5; <ISCED 5A, first degree> = 6; Beyond <ISCED 5A, first degree> = 7; I don't know = 8

Compute the highest educational level of either parent after recoding "I don't know" to "ZERO". If BS4GMFED is "MISSING" use BS4GFMED. If BS4GFMED is "MISSING" use BS4GMFED. If both variables have valid data use the highest.

1 = University Degree = Responded "<ISCED 5A, first degree>" or "Beyond <ISCED 5A, first degree>"
2 = Completed Post-secondary Education but Not University = Responded "<ISCED 4>" or "<ISCED 5B>"
3 = Completed Upper-secondary School = Responded "<ISCED 3>"
4 = Completed Lower-secondary School = Responded "<ISCED 2>"
5 = Less Than Lower-secondary School = Responded "Some <ISCED Level 1or 2> or did not go to school"
6 = Do Not Know = Responded "I don't know"

The derived variable is coded as missing if BS4GMFED and BS4GFMED are missing.

Trend Comments:
Released in 2003.

Derived Variable Name: bsdgborn	**Variable Label:** Parents Born in Country	**Grade:** Eighth

Title of International Report Exhibit:	Students' Parents Born in the Country with Trends

Report Location:	4.3 Math and Science

Questionnaire Location:	SQ2_20A,B or SQ2S_32A,B

Source Variable:	BS4GMBRN, BS4GFBRN

Procedure: Based on responses to the following questions in the Student Questionnaire:

Was your mother (or stepmother or female guardian) born in <country>? (SQ2_20A or SQ2S_32A, BS4GMBRN)

Was your father (or stepfather or male guardian) born in <country>? (SQ2_20B or SQ2S_32B, BS4GFBRN)

Response options: Yes = 1; No = 2

1 = Both Parents Born in Country = Responded "Yes" to BS4GMBRN and BS4GFBRN

2 = Only One Parent Born in Country = Responded "Yes" to BS4GMBRN and "No" or "MISSING" to BS4GFBRN or responded "Yes" to BS4GFBRN and "No" or "MISSING" to BS4GMBRN

3 = Neither Parent Born in Country = Responded "No" or "MISSING" to BS4GMBRN and BS4GFBRN

Trend Comments:

Derived Variable Name: bsdgcavl	**Variable Label:** Computer Use	**Grade:** Eighth

Title of International Report Exhibit:

Computer Use with Trends

Report Location:

4.6 Math and Science

Questionnaire Location: SQ2_14A,Ba,b,c or SQ2S_27A,Ba,b,c

Source Variable:

BS4GUSEC, BS4GCHOM, BS4GCSCH, BS4GCELS

Procedure:

Based on the responses to the following questions in the Student Questionnaire:

Do you ever use a computer? (Do not include PlayStation, GameCube, Xbox, or other TV/video game computers.) (SQ2_14A or SQ2S_27A, BS4GUSEC)

Response options: Yes = 1; No = 2

Where do you use a computer?

At home (SQ2_14Ba or SQ2S_27Ba, BS4GCHOM)

At school (SQ2_14Bb or SQ2S_27Bb, BS4GCSCH)

Elsewhere (e.g., public library, friend's home, Internet café) (SQ2_14Bc or SQ2S_27Bc, BS4GCELS)

Response options: Yes = 1; No = 2

1 = Use Computer Both at Home and at School = Responded "Yes" to BS4GUSEC, BS4GCHOM and BS4GCSCH

2 = Use Computer at Home but Not at School = Responded "Yes" to BS4GUSEC and BS4GCHOM and "No" or "MISSING" to BS4GCSCH

3 = Use Computer at School but Not at Home = Responded "Yes" to BS4GUSEC and BS4GCSCH and "No" or "MISSING" to BS4GCHOM

4 = Use Computer Only at Places Other than Home and School = Responded "Yes" to BS4GUSEC and BS4GCELS and "No" or "MISSING" to BS4GCHOM and BS4GCSCH

5 = Do Not Use Computer at All = Responded "No" to BS4GUSEC

The derived variable is coded as missing if BS4GUSEC is "Yes" or "MISSING", and BS4GCHOM and BS4GCSCH and BS4GCELS are "No" or "MISSING".

Trend Comments:

Released in 2003.

Derived Variable Name: bsdmtmh　　　**Variable Label:** Index of Time on Math Homework (TMH)　　　**Grade:** Eighth

Title of International Report Exhibit:	Index of Time Students Spend Doing Mathematics Homework (TMH) in a Normal School Week
Report Location:	4.7 Math
Questionnaire Location:	SQ2_18A,B or SQ2S_31Aa,Ba
Source Variable:	BS4MOHWG, BS4MSHWM

Procedure:

Based on the responses to the following questions in the Student Questionnaire:

How often does your teacher give you homework in mathematics? (SQ2_18A or SQ2S_31Aa, BS4MOHWG)

Response options: Every day = 1 ; 3 or 4 times a week = 2; 1 or 2 times a week = 3; Less than once a week = 4; Never = 5

When your teacher gives you mathematics homework, about how many minutes do you usually spend on your homework? (SQ2_18B or SQ2S_31Ba, BS4MSHWM)

Response options: Zero minutes = 1; 1–15 minutes = 2; 16–30 minutes = 3; 31–60 minutes = 4; 61–90 minutes = 5; More than 90 minutes = 6

1 = High = Responded "Every day" or "3 or 4 times a week" to BS4MOHWG and "31-60 minutes" or "61-90 minutes" or "More than 90 minutes" to BS4MSHWM

2 = Medium = All other response combinations

3 = Low = Responded "Never" to BS4MOHWG or responded "1 or 2 times a week " or "Less than once a week" to BS4MOHWG and "Zero minutes" or "1-15 minutes" or "16-30 minutes" to BS4MSHWM

The index is coded as missing if BS4MOHWG is "MISSING", or BS4MSHWM is "MISSING" and BS4MOHWG is "VALID" but different than "Never".

Trend Comments:　　　Released in 2003 as bsdmhw. Wording in question part B (BS4MSHWM) modified in 2007.

Derived Variable Name: bsdstsh	**Variable Label:** Index of Time on Science Homework (TSH)	**Grade:** Eighth

Title of International Report Exhibit:

Index of Time Students Spend Doing Science Homework (TSH) in a Normal School Week

Report Location:

4.7 Science

Questionnaire Location: SQ2_19A,B

Source Variable:

BS4SOHWG, BS4SSHWM

Procedure:

Based on the responses to the following questions in the Student Questionnaire:

How often does your teacher give you homework in science? (SQ2_19A, BS4SOHWG)

Response options: Every day = 1; 3 or 4 times a week = 2; 1 or 2 times a week = 3; Less than once a week = 4; Never = 5

When your teacher gives you science homework, about how many minutes do you usually spend on your homework? (SQ2_19B, BS4SSHWM)

Response options: Zero minutes = 1; 1–15 minutes = 2; 16–30 minutes = 3; 31–60 minutes = 4; 61–90 minutes = 5; More than 90 minutes = 6

1 = High = Responded "Every day" or "3 or 4 times a week" to BS4SOHWG and "31-60 minutes" or "61-90 minutes" or "More than 90 minutes" to BS4SSHWM

2 = Medium = All other response combinations

3 = Low = Responded "Never" to BS4SOHWG or responded "1 or 2 times a week " or "Less than once a week" to BS4SOHWG and "Zero minutes" or "1-15 minutes" or "16-30 minutes" to BS4SSHWM

The index is coded as missing if BS4SOHWG is "MISSING", or BS4SSHWM is "MISSING" and BS4SOHWG is "VALID" but different than "Never".

Trend Comments:

Released in 2003 as bsdshw. Wording in question part B (BS4SSHWM) modified in 2007.

Derived Variable Name: bsdbtsh   **Variable Label:** Index of Time on Biology Homework (B-TSH)   **Grade:** Eighth

Title of International Report Exhibit:	Index of Time Students Spend Doing Science Homework (TSH) in a Normal School Week
Report Location:	4.7 Science
Questionnaire Location:	SQ2S_31Ab,Bb
Source Variable:	BS4BOHWG, BS4BSHWM

Procedure: Based on the responses to the following questions in the Student Questionnaire:

How often does your teacher give you homework in biology? (SQ2S_31Ab, BS4BOHWG)

Response options: Every day = 1; 3 or 4 times a week = 2; 1 or 2 times a week = 3; Less than once a week = 4; Never = 5

When your teacher gives you biology homework, about how many minutes do you usually spend on your homework? (SQ2S_31Bb, BS4BSHWM)

Response options: Zero minutes = 1; 1–15 minutes = 2; 16–30 minutes = 3; 31–60 minutes = 4; 61–90 minutes = 5; More than 90 minutes = 6

1 = High = Responded "Every day" or "3 or 4 times a week" to BS4BOHWG and "31-60 minutes" or "61-90 minutes" or "More than 90 minutes" to BS4BSHWM

2 = Medium = All other response combinations

3 = Low = Responded "Never" to BS4BOHWG or responded "1 or 2 times a week " or "Less than once a week" to BS4BOHWG and "Zero minutes" or "1-15 minutes" or "16-30 minutes" to BS4BSHWM

The index is coded as missing if BS4BOHWG is "MISSING", or BS4BSHWM is "MISSING" and BS4BOHWG is "VALID" but different than "Never".

Trend Comments: Released in 2003 as bsdbhw. Wording in question part B (BS4BSHWM) modified in 2007.

Derived Variable Name: bsdetsh   **Variable Label:** Index of Time on Earth S Homework (E-TSH)   **Grade:** Eighth

Title of International Report Exhibit:	Index of Time Students Spend Doing Science Homework (TSH) in a Normal School Week

Report Location: 4.7 Science

Questionnaire Location: SQ2S_31Ac,Bc

Source Variable: BS4EOHWG, BS4ESHWM

Procedure: Based on the responses to the following questions in the Student Questionnaire:

How often does your teacher give you homework in earth science? (SQ2S_31Ac, BS4EOHWG)

Response options: Every day = 1; 3 or 4 times a week = 2; 1 or 2 times a week = 3; Less than once a week = 4; Never = 5

When your teacher gives you earth science homework, about how many minutes do you usually spend on your homework? (SQ2S_31Bc, BS4ESHWM)

Response options: Zero minutes = 1; 1–15 minutes = 2; 16–30 minutes = 3; 31–60 minutes = 4; 61–90 minutes = 5; More than 90 minutes = 6

1 = High = Responded "Every day" or "3 or 4 times a week" to BS4EOHWG and "31-60 minutes" or "61-90 minutes" or "More than 90 minutes" to BS4ESHWM

2 = Medium = All other response combinations

3 = Low = Responded "Never" to BS4EOHWG or responded "1 or 2 times a week " or "Less than once a week" to BS4EOHWG and "Zero minutes" or "1-15 minutes" or "16-30 minutes" to BS4ESHWM

The index is coded as missing if BS4EOHWG is "MISSING", or BS4ESHWM is "MISSING" and BS4EOHWG is "VALID" but different than "Never".

Trend Comments:

Released in 2003 as bsdehw. Wording in question part B (BS4ESHWM) modified in 2007.

Derived Variable Name: bsdctsh   **Variable Label:** Index of Time on Chemist Homework (C-TSH)   **Grade:** Eighth

Title of International Report Exhibit:	Index of Time Students Spend Doing Science Homework (TSH) in a Normal School Week
Report Location:	4.7 Science
Questionnaire Location:	SQ2S_31Ad,Bd
Source Variable:	BS4COHWG, BS4CSHWM

Procedure: Based on the responses to the following questions in the Student Questionnaire:

How often does your teacher give you homework in chemistry? (SQ2S_31Ad, BS4COHWG)

Response options: Every day = 1; 3 or 4 times a week = 2; 1 or 2 times a week = 3; Less than once a week = 4; Never = 5

When your teacher gives you chemistry homework, about how many minutes do you usually spend on your homework? (SQ2S_31Bd, BS4CSHWM)

Response options: Zero minutes = 1; 1–15 minutes = 2; 16–30 minutes = 3; 31–60 minutes = 4; 61–90 minutes = 5; More than 90 minutes = 6

1 = High = Responded "Every day" or "3 or 4 times a week" to BS4COHWG and "31-60 minutes" or "61-90 minutes" or "More than 90 minutes" to BS4CSHWM

2 = Medium = All other response combinations

3 = Low = Responded "Never" to BS4COHWG or responded "1 or 2 times a week " or "Less than once a week" to BS4COHWG and "Zero minutes" or "1-15 minutes" or "16-30 minutes" to BS4CSHWM

The index is coded as missing if BS4COHWG is "MISSING", or BS4CSHWM is "MISSING" and BS4COHWG is "VALID" but different than "Never".

Trend Comments: Released in 2003 as bsdchw. Wording in question part B (BS4CSHWM) modified in 2007.

Derived Variable Name: bsdptsh	**Variable Label:** Index of Time on Physics Homework (P-TSH)	**Grade:** Eighth

Title of International Report Exhibit:
Index of Time Students Spend Doing Science Homework (TSH) in a Normal School Week

Report Location:
4.7 Science

Questionnaire Location: SQ2S_31Ae,Be

Source Variable:
BS4POHWG, BS4PSHWM

Procedure:
Based on the responses to the following questions in the Student Questionnaire:

How often does your teacher give you homework in physics? (SQ2S_31Ae, BS4POHWG)
Response options: Every day = 1; 3 or 4 times a week = 2; 1 or 2 times a week = 3; Less than once a week = 4; Never = 5

When your teacher gives you physics homework, about how many minutes do you usually spend on your homework? (SQ2S_31Be, BS4PSHWM)
Response options: Zero minutes = 1; 1–15 minutes = 2; 16–30 minutes = 3; 31–60 minutes = 4; 61–90 minutes = 5; More than 90 minutes = 6

1 = High = Responded "Every day" or "3 or 4 times a week" to BS4POHWG and "31-60 minutes" or "61-90 minutes" or "More than 90 minutes" to BS4PSHWM
2 = Medium = All other response combinations
3 = Low = Responded "Never" to BS4POHWG or responded "1 or 2 times a week " or "Less than once a week" to BS4POHWG and "Zero minutes" or "1-15 minutes" or "16-30 minutes" to BS4PSHWM

The index is coded as missing if BS4POHWG is "MISSING", or BS4PSHWM is "MISSING" and BS4POHWG is "VALID" but different than "Never".

Trend Comments:
Released in 2003 as bsdphw. Wording in question part B (BS4PSHWM) modified in 2007.

Derived Variable Name: bsdmpatm	**Variable Label:** Index Studs Pos Affect To Math (PATM)	**Grade:** Eighth

Title of International Report Exhibit:
Index of Students' Positive Affect Toward Mathematics (PATM) with Trends

Report Location:
4.8 Math

Questionnaire Location: SQ2_8d,g,h or SQ2S_8d,g,h

Source Variable:
BS4MAENJ, BS4MABOR, BS4MALIK

Procedure:
Based on the responses to the following question in the Student Questionnaire:

How much do you agree with these statements about learning mathematics?

I enjoy learning mathematics (SQ2_8d or SQ2S_8d, BS4MAENJ)

Mathematics is boring (SQ2_8g or SQ2S_8g, BS4MABOR)

I like mathematics (SQ2_8h or SQ2S_8h, BS4MALIK)

Response options: Agree a lot = 1; Agree a little = 2; Disagree a little = 3; Disagree a lot = 4

The index is computed by averaging the responses to the three source questions ("Mathematics is boring" is reverse coded).

1 = High = Average is less than or equal to 2

2 = Medium = Average is greater than 2 and less than 3

3 = Low = Average is greater than or equal to 3

The index is coded as missing if there are 2 or more source questions with invalid data.

Trend Comments:
Trends reported to 1995 and 1999 in TIMSS 2007 international reports, but variable not released in previous cycles.

Derived Variable Name: bsdspats   **Variable Label:** Index Studs Pos Affect To Science (PATS)   **Grade:** Eighth

Title of International Report Exhibit:	Index of Students' Positive Affect Toward Science (PATS) with Trends
Report Location:	4.8 Science
Questionnaire Location:	SQ2_11d,g,h
Source Variable:	BS4SAENJ, BS4SABOR, BS4SALIK

Procedure:

Based on the responses to the following question in the Student Questionnaire:

How much do you agree with these statements about learning science?

I enjoy learning science (SQ2_11d, BS4SAENJ)

Science is boring (SQ2_11g, BS4SABOR)

I like science (SQ2_11h, BS4SALIK)

Response options: Agree a lot = 1; Agree a little = 2; Disagree a little = 3; Disagree a lot = 4

The index is computed by averaging the responses to the three source questions ("Science is boring" is reverse coded).

1 = High = Average is less than or equal to 2

2 = Medium = Average is greater than 2 and less than 3

3 = Low = Average is greater than or equal to 3

The index is coded as missing if there are 2 or more source questions with invalid data.

Trend Comments: Trends reported to 1995 and 1999 in TIMSS 2007 international reports, but variable not released in previous cycles.

Derived Variable Name: bsdbpats	**Variable Label:** Index Studs Pos Affect To Bio (B-PATS)	**Grade:** Eighth

Title of International Report Exhibit: Index of Students' Positive Affect Toward Science (PATS) with Trends

Report Location: 4.8 Science

Questionnaire Location: SQ2S_12d,g,h

Source Variable: BS4BAENJ, BS4BABOR, BS4BALIK

Procedure: Based on the responses to the following question in the Student Questionnaire:

How much do you agree with these statements about learning biology?

I enjoy learning biology (SQ2S_12d, BS4BAENJ)

Biology is boring (SQ2S_12g, BS4BABOR)

I like biology (SQ2S_12h, BS4BALIK)

Response options: Agree a lot = 1; Agree a little = 2; Disagree a little = 3; Disagree a lot = 4

The index is computed by averaging the responses to the three source questions ("Biology is boring" is reverse coded).

1 = High = Average is less than or equal to 2

2 = Medium = Average is greater than 2 and less than 3

3 = Low = Average is greater than or equal to 3

The index is coded as missing if there are 2 or more source questions with invalid data.

Trend Comments: Trends reported to 1995 and 1999 in TIMSS 2007 international reports, but variable not released in previous cycles.

Derived Variable Name: bsdepats   **Variable Label:** Index Studs Pos Affect To EarS (E-PATS)   **Grade:** Eighth

Title of International Report Exhibit:	Index of Students' Positive Affect Toward Science (PATS) with Trends
Report Location:	4.8 Science
Questionnaire Location:	SQ2S_16d,g,h
Source Variable:	BS4EAENJ, BS4EABOR, BS4EALIK

Procedure:

Based on the responses to the following question in the Student Questionnaire:

How much do you agree with these statements about learning earth science?

I enjoy learning earth science (SQ2S_16d, BS4EAENJ)

Earth science is boring (SQ2S_16g, BS4EABOR)

I like earth science (SQ2S_16h, BS4EALIK)

Response options: Agree a lot = 1; Agree a little = 2; Disagree a little = 3; Disagree a lot = 4

The index is computed by averaging the responses to the three source questions ("Earth science is boring" is reverse coded).

1 = High = Average is less than or equal to 2

2 = Medium = Average is greater than 2 and less than 3

3 = Low = Average is greater than or equal to 3

The index is coded as missing if there are 2 or more source questions with invalid data.

Trend Comments: Trends reported to 1995 and 1999 in TIMSS 2007 international reports, but variable not released in previous cycles.

Derived Variable Name: bsdcpats	**Variable Label:** Index Studs Pos Affect To Chem (C-PATS)	**Grade:** Eighth

Title of International Report Exhibit:	Index of Students' Positive Affect Toward Science (PATS) with Trends

Report Location:	4.8 Science

Questionnaire Location:	SQ2S_20d,g,h

Source Variable:	BS4CAENJ, BS4CABOR, BS4CALIK

Procedure:	Based on the responses to the following question in the Student Questionnaire:

How much do you agree with these statements about learning chemistry?

I enjoy learning chemistry (SQ2S_20d, BS4CAENJ)

Chemistry is boring (SQ2S_20g, BS4CABOR)

I like chemistry (SQ2S_20h, BS4CALIK)

Response options: Agree a lot = 1; Agree a little = 2; Disagree a little = 3; Disagree a lot = 4

The index is computed by averaging the responses to the three source questions ("Chemistry is boring" is reverse coded).

1 = High = Average is less than or equal to 2

2 = Medium = Average is greater than 2 and less than 3

3 = Low = Average is greater than or equal to 3

The index is coded as missing if there are 2 or more source questions with invalid data.

Trend Comments:	Trends reported to 1995 and 1999 in TIMSS 2007 international reports, but variable not released in previous cycles.

Derived Variable Name: bsdppats	**Variable Label:** Index Studs Pos Affect To Phy (P-PATS)	**Grade:** Eighth

Title of International Report Exhibit:

Index of Students' Positive Affect Toward Science (PATS) with Trends

Report Location:

4.8 Science

Questionnaire Location: SQ2S_24d,g,h

Source Variable:

BS4PAENJ, BS4PABOR, BS4PALIK

Procedure:

Based on the responses to the following question in the Student Questionnaire:

How much do you agree with these statements about learning physics?

I enjoy learning physics (SQ2S_24d, BS4PAENJ)

Physics is boring (SQ2S_24g, BS4PABOR)

I like physics (SQ2S_24h, BS4PALIK)

Response options: Agree a lot = 1; Agree a little = 2; Disagree a little = 3; Disagree a lot = 4

The index is computed by averaging the responses to the three source questions ("Physics is boring" is reverse coded).

1 = High = Average is less than or equal to 2

2 = Medium = Average is greater than 2 and less than 3

3 = Low = Average is greater than or equal to 3

The index is coded as missing if there are 2 or more source questions with invalid data.

Trend Comments:

Trends reported to 1995 and 1999 in TIMSS 2007 international reports, but variable not released in previous cycles.

Derived Variable Name: bsdmsvm	**Variable Label:** Index of Students Valuing Math (SVM)	**Grade:** Eighth

Title of International Report Exhibit: Index of Students Valuing Mathematics (SVM) with Trends

Report Location: 4.9 Math

Questionnaire Location: SQ2_9a,b,c,d or SQ2S_9a,b,c,d

Source Variable: BS4MAHDL, BS4MAOSS, BS4MAUNI, BS4MAGET

Procedure: Based on the responses to the following question in the Student Questionnaire:

How much do you agree with these statements about learning mathematics?

I think learning mathematics will help me in my daily life (SQ2_9a or SQ2S_9a, BS4MAHDL)

I need mathematics to learn other school subjects (SQ2_9b or SQ2S_9b, BS4MAOSS)

I need to do well in mathematics to get into the <university> of my choice (SQ2_9c or SQ2S_9c, BS4MAUNI)

I need to do well in mathematics to get the job I want (SQ2_9d or SQ2S_9d, BS4MAGET)

Response options: Agree a lot = 1; Agree a little = 2; Disagree a little = 3; Disagree a lot = 4

The index is computed by averaging the responses to the four source questions.

1 = High = Average is less than or equal to 2

2 = Medium = Average is greater than 2 and less than 3

3 = Low = Average is greater than or equal to 3

The index is coded as missing if there are 2 or more source questions with invalid data.

Trend Comments: Released in 2003 as bsdmsv. Please note that the 2003 index calculation used data from three more questions: "I would like to take more mathematics in school", "I enjoy learning mathematics" and "I would like a job that involved using mathematics".

| **Derived Variable Name:** bsdssvs | **Variable Label:** Index of Students Valuing Science (SVS) | **Grade:** Eighth |

Title of International Report Exhibit:
Index of Students Valuing Science (SVS) with Trends

Report Location:
4.9 Science

Questionnaire Location: SQ2_12a,b,c,d

Source Variable:
BS4SAHDL, BS4SAOSS, BS4SAUNI, BS4SAGET

Procedure:
Based on the responses to the following question in the Student Questionnaire:

How much do you agree with these statements about learning science?

I think learning science will help me in my daily life (SQ2_12a, BS4SAHDL)

I need science to learn other school subjects (SQ2_12b, BS4SAOSS)

I need to do well in science to get into the <university> of my choice (SQ2_12c, BS4SAUNI)

I need to do well in science to get the job I want (SQ2_12d, BS4SAGET)

Response options: Agree a lot = 1; Agree a little = 2; Disagree a little = 3; Disagree a lot = 4

The index is computed by averaging the responses to the four source questions.

1 = High = Average is less than or equal to 2

2 = Medium = Average is greater than 2 and less than 3

3 = Low = Average is greater than or equal to 3

The index is coded as missing if there are 2 or more source questions with invalid data.

Trend Comments:
Released in 2003 as bsdssv. Please note that the 2003 index calculation used data from three more questions: "I would like to take more science in school", "I enjoy learning science" and "I would like a job that involved using science".

Derived Variable Name: bsdbsvs	**Variable Label:** Index of Students Valuing Biology (B-SVS)	**Grade:** Eighth

Title of International Report Exhibit:	Index of Students Valuing Science (SVS) with Trends
Report Location:	4.9 Science
Questionnaire Location:	SQ2S_13a,b,c,d
Source Variable:	BS4BAHDL, BS4BAOSS, BS4BAUNI, BS4BAGET

Procedure:

Based on the responses to the following question in the Student Questionnaire:

How much do you agree with these statements about learning biology?

I think learning biology will help me in my daily life (SQ2S_13a, BS4BAHDL)

I need biology to learn other school subjects (SQ2S_13b, BS4BAOSS)

I need to do well in biology to get into the <university> of my choice (SQ2S_13c, BS4BAUNI)

I need to do well in biology to get the job I want (SQ2S_13d, BS4BAGET)

Response options: Agree a lot = 1; Agree a little = 2; Disagree a little = 3; Disagree a lot = 4

The index is computed by averaging the responses to the four source questions.

1 = High = Average is less than or equal to 2

2 = Medium = Average is greater than 2 and less than 3

3 = Low = Average is greater than or equal to 3

The index is coded as missing if there are 2 or more source questions with invalid data.

Trend Comments:

Released in 2003 as bsdbsv. Please note that the 2003 index calculation used data from three more questions: "I would like to take more biology in school", "I enjoy learning biology" and "I would like a job that involved using biology".

Derived Variable Name: bsdesvs	**Variable Label:** Index of Students Valuing Earth S (E-SVS)	**Grade:** Eighth

Title of International Report Exhibit:	Index of Students Valuing Science (SVS) with Trends

Report Location:	4.9 Science

Questionnaire Location: SQ2S_17a,b,c,d

Source Variable:	BS4EAHDL, BS4EAOSS, BS4EAUNI, BS4EAGET

Procedure:	Based on the responses to the following question in the Student Questionnaire:

How much do you agree with these statements about learning earth science?

I think learning earth science will help me in my daily life (SQ2S_17a, BS4EAHDL)

I need earth science to learn other school subjects (SQ2S_17b, BS4EAOSS)

I need to do well in earth science to get into the <university> of my choice (SQ2S_17c, BS4EAUNI)

I need to do well in earth science to get the job I want (SQ2S_17d, BS4EAGET)

Response options: Agree a lot = 1; Agree a little = 2; Disagree a little = 3; Disagree a lot = 4

The index is computed by averaging the responses to the four source questions.

1 = High = Average is less than or equal to 2

2 = Medium = Average is greater than 2 and less than 3

3 = Low = Average is greater than or equal to 3

The index is coded as missing if there are 2 or more source questions with invalid data.

Trend Comments:	Released in 2003 as bsdesv. Please note that the 2003 index calculation used data from three more questions: "I would like to take more earth science in school", "I enjoy learning earth science" and "I would like a job that involved using earth science".

Derived Variable Name: bsdcsvs   **Variable Label:** Index of Students Valuing Chemist (C-SVS)   **Grade:** Eighth

Title of International Report Exhibit:	Index of Students Valuing Science (SVS) with Trends
Report Location:	4.9 Science
Questionnaire Location:	SQ2S_21a,b,c,d
Source Variable:	BS4CAHDL, BS4CAOSS, BS4CAUNI, BS4CAGET

Procedure: Based on the responses to the following question in the Student Questionnaire:

How much do you agree with these statements about learning chemistry?

I think learning chemistry will help me in my daily life (SQ2S_21a, BS4CAHDL)

I need chemistry to learn other school subjects (SQ2S_21b, BS4CAOSS)

I need to do well in chemistry to get into the <university> of my choice (SQ2S_21c, BS4CAUNI)

I need to do well in chemistry to get the job I want (SQ2S_21d, BS4CAGET)

Response options: Agree a lot = 1; Agree a little = 2; Disagree a little = 3; Disagree a lot = 4

The index is computed by averaging the responses to the four source questions.

1 = High = Average is less than or equal to 2

2 = Medium = Average is greater than 2 and less than 3

3 = Low = Average is greater than or equal to 3

The index is coded as missing if there are 2 or more source questions with invalid data.

Trend Comments: Released in 2003 as bsdcsv. Please note that the 2003 index calculation used data from three more questions: "I would like to take more chemistry in school", "I enjoy learning chemistry" and "I would like a job that involved using chemistry".

Derived Variable Name: bsdpsvs	**Variable Label:** Index of Students Valuing Physics (P-SVS)	**Grade:** Eighth

Title of International Report Exhibit:

Index of Students Valuing Science (SVS) with Trends

Report Location:

4.9 Science

Questionnaire Location: SQ2S_25a,b,c,d

Source Variable:

BS4PAHDL, BS4PAOSS, BS4PAUNI, BS4PAGET

Procedure:

Based on the responses to the following question in the Student Questionnaire:

How much do you agree with these statements about learning physics?

I think learning physics will help me in my daily life (SQ2S_25a, BS4PAHDL)

I need physics to learn other school subjects (SQ2S_25b, BS4PAOSS)

I need to do well in physics to get into the <university> of my choice (SQ2S_25c, BS4PAUNI)

I need to do well in physics to get the job I want (SQ2S_25d, BS4PAGET)

Response options: Agree a lot = 1; Agree a little = 2; Disagree a little = 3; Disagree a lot = 4

The index is computed by averaging the responses to the four source questions.

1 = High = Average is less than or equal to 2

2 = Medium = Average is greater than 2 and less than 3

3 = Low = Average is greater than or equal to 3

The index is coded as missing if there are 2 or more source questions with invalid data.

Trend Comments:

Released in TIMSS as bsdpsv. Please note that the 2003 index calculation used data from three more questions: "I would like to take more physics in school", "I enjoy learning physics" and "I would like a job that involved using physics".

Derived Variable Name: bsdmscm	**Variable Label:** Index of Self-Confid Learning Math (SCM)	**Grade:** Eighth

| **Title of International Report Exhibit:** | Index of Students' Self-Confidence in Learning Mathematics (SCM) with Trends; |
| | Index of Students' Self-Confidence in Learning Mathematics (SCM) by Gender |

| **Report Location:** | 4.10; 4.11 Math |

| **Questionnaire Location:** | SQ2_8a,c,e,f or SQ2S_8a,c,e,f |

| **Source Variable:** | BS4MAWEL, BS4MACLM, BS4MASTR, BS4MAQKY |

| **Procedure:** | Based on the responses to the following question in the Student Questionnaire: |

How much do you agree with these statements about learning mathematics?

I usually do well in mathematics (SQ2_8a or SQ2S_8a, BS4MAWEL)

Mathematics is more difficult for me than for many of my classmates (SQ2_8c or SQ2S_8c, BS4MACLM)

Mathematics is not one of my strengths (SQ2_8e or SQ2S_8e, BS4MASTR)

I learn things quickly in mathematics (SQ2_8f or SQ2S_8f, BS4MAQKY)

Response options: Agree a lot = 1; Agree a little = 2; Disagree a little = 3; Disagree a lot = 4

The index is computed by averaging the responses to the four source questions ("Mathematics is more difficult for me than for many of my classmates" and "Mathematics is not one of my strengths" are reverse coded).

1 = High = Average is less than or equal to 2

2 = Medium = Average is greater than 2 and less than 3

3 = Low = Average is greater than or equal to 3

The index is coded as missing if there are 2 or more source questions with invalid data.

Derived Variable Name: bsdsscs	**Variable Label:** Index Self-Confid Learning Science (SCS)	**Grade:** Eighth

Title of International Report Exhibit:

Index of Students' Self-Confidence in Learning Science (SCS) with Trends;

Index of Students' Self-Confidence in Learning Science (SCS) by Gender

Report Location:

4.10; 4.11 Science

Questionnaire Location: SQ2_11a,c,e,f

Source Variable:

BS4SAWEL, BS4SACLM, BS4SASTR, BS4SAQKY

Procedure:

Based on the responses to the following question in the Student Questionnaire:

How much do you agree with these statements about learning science?

I usually do well in science (SQ2_11a, BS4SAWEL)

Science is more difficult for me than for many of my classmates (SQ2_11c, BS4SACLM)

Science is not one of my strengths (SQ2_11e, BS4SASTR)

I learn things quickly in science (SQ2_11f, BS4SAQKY)

Response options: Agree a lot = 1; Agree a little = 2; Disagree a little = 3; Disagree a lot = 4

The index is computed by averaging the responses to the four source questions ("Science is more difficult for me than for many of my classmates" and "Science is not one of my strengths" are reverse coded).

1 = High = Average is less than or equal to 2

2 = Medium = Average is greater than 2 and less than 3

3 = Low = Average is greater than or equal to 3

The index is coded as missing if there are 2 or more source questions with invalid data.

Trend Comments:

Released in 2003 as bsdsscl.

| **Derived Variable Name:** bsdbscs | **Variable Label:** Index Self-Confid Learning Biology (B-SCS) | **Grade:** Eighth |

| **Title of International Report Exhibit:** | Index of Students' Self-Confidence in Learning Science (SCS) with Trends; Index of Students' Self-Confidence in Learning Science (SCS) by Gender |

| **Report Location:** | 4.10; 4.11 Science |

| **Questionnaire Location:** | SQ2S_12a,c,e,f |

| **Source Variable:** | BS4BAWEL, BS4BACLM, BS4BASTR, BS4BAQKY |

| **Procedure:** | Based on the responses to the following question in the Student Questionnaire: |

How much do you agree with these statements about learning biology?

I usually do well in biology (SQ2S_12a, BS4BAWEL)

Biology is more difficult for me than for many of my classmates (SQ2S_12c, BS4BACLM)

Biology is not one of my strengths (SQ2S_12e, BS4BASTR)

I learn things quickly in biology (SQ2_12f, BS4BAQKY)

Response options: Agree a lot = 1; Agree a little = 2; Disagree a little = 3; Disagree a lot = 4

The index is computed by averaging the responses to the four source questions ("Biology is more difficult for me than for many of my classmates" and "Biology is not one of my strengths" are reverse coded).

1 = High = Average is less than or equal to 2

2 = Medium = Average is greater than 2 and less than 3

3 = Low = Average is greater than or equal to 3

The index is coded as missing if there are 2 or more source questions with invalid data.

| **Trend Comments:** | Released in 2003 as bsdbscl. |

Derived Variable Name: bsdescs	**Variable Label:** Index Self-Confid Learning Earth S (E-SCS)	**Grade:** Eighth

Title of International Report Exhibit:

Index of Students' Self-Confidence in Learning Science (SCS) with Trends;

Index of Students' Self-Confidence in Learning Science (SCS) by Gender

Report Location:

4.10; 4.11 Science

Questionnaire Location: SQ2S_16a,c,e,f

Source Variable:

BS4EAWEL, BS4EACLM, BS4EASTR, BS4EAQKY

Procedure:

Based on the responses to the following question in the Student Questionnaire:

How much do you agree with these statements about learning earth science?

I usually do well in earth science (SQ2S_16a, BS4EAWEL)

Earth science is more difficult for me than for many of my classmates (SQ2S_16c, BS4EACLM)

Earth science is not one of my strengths (SQ2S_16e, BS4EASTR)

I learn things quickly in earth science (SQ2S_16f, BS4EAQKY)

Response options: Agree a lot = 1; Agree a little = 2; Disagree a little = 3; Disagree a lot = 4

The index is computed by averaging the responses to the four source questions ("Earth science is more difficult for me than for many of my classmates" and "Earth science is not one of my strengths" are reverse coded).

1 = High = Average is less than or equal to 2

2 = Medium = Average is greater than 2 and less than 3

3 = Low = Average is greater than or equal to 3

The index is coded as missing if there are 2 or more source questions with invalid data.

Trend Comments:

Released in 2003 as bsdescl.

Derived Variable Name: bsdcscs   **Variable Label:** Index Self-Confid Learning Chemist (C-SCS)   **Grade:** Eighth

Title of International Report Exhibit:	Index of Students' Self-Confidence in Learning Science (SCS) with Trends;
	Index of Students' Self-Confidence in Learning Science (SCS) by Gender
Report Location:	4.10; 4.11 Science
Questionnaire Location:	SQ2S_20a,c,e,f
Source Variable:	BS4CAWEL, BS4CACLM, BS4CASTR, BS4CAQKY

Procedure: Based on the responses to the following question in the Student Questionnaire:

How much do you agree with these statements about learning chemistry?

I usually do well in chemistry (SQ2S_20a, BS4CAWEL)

Chemistry is more difficult for me than for many of my classmates (SQ2S_20c, BS4CACLM)

Chemistry is not one of my strengths (SQ2S_20e, BS4CASTR)

I learn things quickly in chemistry (SQ2S_20f, BS4CAQKY)

Response options: Agree a lot = 1; Agree a little = 2; Disagree a little = 3; Disagree a lot = 4

The index is computed by averaging the responses to the four source questions ("Chemistry is more difficult for me than for many of my classmates" and "Chemistry is not one of my strengths" are reverse coded).

1 = High = Average is less than or equal to 2

2 = Medium = Average is greater than 2 and less than 3

3 = Low = Average is greater than or equal to 3

The index is coded as missing if there are 2 or more source questions with invalid data.

Trend Comments: Released in 2003 as bsdcscl.

Derived Variable Name: bsdpscs	**Variable Label:** Index Self-Confid Learning Physics (P-SCS)	**Grade:** Eighth

Title of International Report Exhibit:
Index of Students' Self-Confidence in Learning Science (SCS) with Trends;

Index of Students' Self-Confidence in Learning Science (SCS) by Gender

Report Location:
4.10; 4.11 Science

Questionnaire Location: SQ2S_24a,c,e,f

Source Variable:
BS4PAWEL, BS4PACLM, BS4PASTR, BS4PAQKY

Procedure:
Based on the responses to the following question in the Student Questionnaire:

How much do you agree with these statements about learning physics?

I usually do well in physics (SQ2S_24a, BS4PAWEL)

Physics is more difficult for me than for many of my classmates (SQ2S_24c, BS4PACLM)

Physics is not one of my strengths (SQ2S_24e, BS4PASTR)

I learn things quickly in physics (SQ2S_24f, BS4PAQKY)

Response options: Agree a lot = 1; Agree a little = 2; Disagree a little = 3; Disagree a lot = 4

The index is computed by averaging the responses to the four source questions ("Physics is more difficult for me than for many of my classmates" and "Physics is not one of my strengths" are reverse coded).

1 = High = Average is less than or equal to 2

2 = Medium = Average is greater than 2 and less than 3

3 = Low = Average is greater than or equal to 3

The index is coded as missing if there are 2 or more source questions with invalid data.

Trend Comments:
Released in 2003 as bsdpscl.

Derived Variable Name: bsdgpbss   **Variable Label:** Idx Std Prcptn Being Safe School (SPBSS)   **Grade:** Eighth

Title of International Report Exhibit:	Index of Students' Perception of Being Safe in School (SPBSS) with Trends
Report Location:	8.14 Math
	8.15 Science
Questionnaire Location:	SQ2_16a,b,c,d,e or SQ2S_29a,b,c,d,e
Source Variable:	BS4GSTOL, BS4GHURT, BS4GMADE, BS4GMFUN, BS4GLEFT

Procedure: Based on the responses to the following question in the Student Questionnaire:

In school, did any of these things happen during the last month?

Something of mine was stolen (SQ2_16a or SQ2S_29a, BS4GSTOL)

I was hit or hurt by other student(s) (e.g., shoving, hitting, kicking) (SQ2_16b or SQ2S_29b, BS4GHURT)

I was made to do things that I didn't want to do by other students (SQ2_16c or SQ2S_29c, BS4GMADE)

I was made fun of or called names (SQ2_16d or SQ2S_29d, BS4GMFUN)

I was left out of activities by other students (SQ2_16e or SQ2S_29e, BS4GLEFT)

Response options: Yes = 1; No = 2

1 = High = Responded "No" to all five statements

2 = Medium = All other response combinations

3 = Low = Responded "Yes" to three or more statements

The index is coded as missing if there are 2 or more source questions with invalid data.

Trend Comments: Released in 2003 as bsdgpss.

Eighth Grade Mathematics Teacher Questionnaire

Section 5

Derived Variable Name: btdmptit	**Variable Label:** Math Time As Percent of Total Instr Time	**Grade:** Eighth

Title of International Report Exhibit: Weekly Intended and Implemented Instructional Time for Mathematics with Trends

Report Location: 5.1 Math

Questionnaire Location: SCQ2_5Bab; SCQ2_5C; TQM2_14

Source Variable: BC4GHTIT, BC4GMTIT, BC4GDSOI, BT4MTIMT

Procedure: Based on responses to the following questions in the School Questionnaire:

What is the total instructional time, excluding breaks, in a typical day?

A. Hours (SCQ2_5Ba, BC4GHTIT)

B. Minutes (SCQ2_5Bb, BC4GMTIT)

In one calendar week, how many days is the school open for instruction? (SCQ2_5C, BC4GDSOI)

Response options: 6 days = 1; 5 1/2 days =2; 5 days = 3; 4 1/2 days = 4; 4 days = 5; other = 6

And on responses to the following question in the Teacher Questionnaire:

How many minutes per week do you teach mathematics to the TIMSS class? (TQM2_14, BT4MTIMT)

The derived variable (mathematics instructional time as a percent of total instructional time) is computed as follows:

Step 1: Recode BC4GDSOI as follows: 6 (Option 1) and 5 1/2 (Option 2) to 6, 5 (Option 3) and 4 1/2 (Option 4) to 5 and "Other" (Option 6) to "MISSING"

Step 2: Compute average total hours of instructional time per week: BC4GDSOI (recoded in Step 1) * [BC4GHTIT +(BC4GMTIT/60)]

Step 3: Compute mathematics instructional hours/week: BT4MTIMT/60

Step 4: Result of Step 3 multiplied by 100 and divided by result of Step 2

Use BC4GHTIT if BC4GMTIT is "MISSING". Use BC4GMTIT/60 if BC4GHTIT is "MISSING".

Trend Comments: Trends reported to 2003 in TIMSS 2007 international reports, but variable not released in previous cycles.

Derived Variable Name: btdmyit	**Variable Label:** Math Yearly Instructional Time	**Grade:** Eighth

Title of International Report Exhibit: Yearly Hours of Implemented Instructional Time for Mathematics with Trends

Report Location: 5.2 Math

Questionnaire Location: SCQ2_5A; SCQ2_5C; TQM2_14

Source Variable: BC4GDYSO, BC4GDSOI, BT4MTIMT

Procedure: Based on responses to the following questions in the School Questionnaire:

How many days per year is your school open for instruction? (SCQ2_5A, BC4GDYSO)

In one calendar week, how many days is the school open for instruction? (SCQ2_5C, BC4GDSOI)

Response options: 6 days = 1; 5 1/2 days =2; 5 days = 3; 4 1/2 days = 4; 4 days = 5; other = 6

And on responses to the following question in the Teacher Questionnaire:

How many minutes per week do you teach mathematics to the TIMSS class? (TQM2_14, BT4MTIMT)

The derived variable (yearly hours of mathematics instructional time) is computed as follows:

Step 1: Recode BC4GDSOI as follows: 6 (Option 1) and 5 1/2 (Option 2) to 6, 5 (Option 3) and 4 1/2 (Option 4) to 5 and "Other" (Option 6) to "MISSING"

Step 2: Compute total instructional weeks/year: BC4GDYSO/BC4GDSOI (recoded in Step 1) (Set "total instructional weeks per year" to missing if less than 30 or more than 48)

Step 3: Compute mathematics instructional hours/week: BT4MTIMT/60

Step 4: Compute mathematics instructional hours/year: Result of Step 2 multiplied by result of Step 3

The derived variable is coded "MISSING" if "total instructional weeks per year" or BT4MTIMT is "MISSING".

Trend Comments: Trends reported to 2003 in TIMSS 2007 international reports, but variable not released in previous cycles.

Derived Variable Name: btdmtpnu	**Variable Label:** Summ Students Taught Number Math Topics	**Grade:** Eighth

Title of International Report Exhibit:	Summary of Students Taught the TIMSS Mathematics Topics

Report Location:	5.5 Math

Questionnaire Location:	TQM2_20Aa-j

Source Variable:	BT4MTP01 to BT4MTP10

Procedure:	Based on responses to the following question in the Teacher Questionnaire:

The following list includes the main topics addressed by the TIMSS mathematics test. Choose the response that best describes when students in the TIMSS Class have been taught each topic. If a topic was taught half this year but not yet completed, please choose "Mostly taught this year". If a topic is not in the curriculum, please choose "Not yet taught or just introduced".

NUMBER topics (TQM2_20Aa-j; BT4MTP01, BT4MTP02, BT4MTP03, BT4MTP04, BT4MTP05, BT4MTP06, BT4MTP07, BT4MTP08, BT4MTP09, BT4MTP10)

Response options: Mostly taught before this year = 1; Mostly taught this year = 2; Not yet taught or just introduced = 3

Compute the percentage of students whose teachers responded "Mostly Taught Before This Year" OR "Mostly Taught This Year" for the individual topics. Following this compute the average across the percentages of students taught all NUMBER topics mostly before this year or this year.

The derived variable is coded "MISSING" if there are more than one-third of the source questions with invalid data.

Trend Comments:

Derived Variable Name: btdmtpal	**Variable Label:** Summ Students Taught Algebra Math Topics	**Grade:** Eighth

Title of International Report Exhibit:	Summary of Students Taught the TIMSS Mathematics Topics

Report Location:	5.5 Math

Questionnaire Location:	TQM2_20Ba-h

Source Variable:	BT4MTP11 to BT4MTP18

Procedure: Based on responses to the following question in the Teacher Questionnaire:

The following list includes the main topics addressed by the TIMSS mathematics test. Choose the response that best describes when students in the TIMSS Class have been taught each topic. If a topic was taught half this year but not yet completed, please choose "Mostly taught this year". If a topic is not in the curriculum, please choose "Not yet taught or just introduced".

ALGEBRA topics (TQM2_20Ba-h; BT4MTP11, BT4MTP12, BT4MTP13, BT4MTP14, BT4MTP15, BT4MTP16, BT4MTP17, BT4MTP18)

Response options: Mostly taught before this year = 1; Mostly taught this year = 2; Not yet taught or just introduced = 3

Compute the percentage of students whose teachers responded "Mostly Taught Before This Year" OR "Mostly Taught This Year" for the individual topics. Following this compute the average across the percentages of students taught all ALGEBRA topics mostly before this year or this year.

The derived variable is coded "MISSING" if there are more than one-third of the source questions with invalid data.

Trend Comments:

Derived Variable Name: btdmtpge	**Variable Label:** Summ Students Taught Geometr Math Topics	**Grade:** Eighth

Title of International Report Exhibit:

Summary of Students Taught the TIMSS Mathematics Topics

Report Location:

5.5 Math

Questionnaire Location: TQM2_20Ca-n

Source Variable:

BT4MTP19 to BT4MTP32

Procedure:

Based on responses to the following question in the Teacher Questionnaire:

The following list includes the main topics addressed by the TIMSS mathematics test. Choose the response that best describes when students in the TIMSS Class have been taught each topic. If a topic was taught half this year but not yet completed, please choose "Mostly taught this year". If a topic is not in the curriculum, please choose "Not yet taught or just introduced".

GEOMETRY topics (TQM2_20Ca-n; BT4MTP19, BT4MTP20, BT4MTP21, BT4MTP22, BT4MTP23, BT4MTP24, BT4MTP25, BT4MTP26, BT4MTP27, BT4MTP28, BT4MTP29, BT4MTP30, BT4MTP31, BT4MTP32)

Response options: Mostly taught before this year = 1; Mostly taught this year = 2; Not yet taught or just introduced = 3

Compute the percentage of students whose teachers responded "Mostly Taught Before This Year" OR "Mostly Taught This Year" for the individual topics. Following this compute the average across the percentages of students taught all GEOMETRY topics mostly before this year or this year.

The derived variable is coded "MISSING" if there are more than one-third of the source questions with invalid data.

Trend Comments:

Derived Variable Name: btdmtpda	**Variable Label:** Summ Students Taught Data Math Topics	**Grade:** Eighth

Title of International Report Exhibit:	Summary of Students Taught the TIMSS Mathematics Topics
Report Location:	5.5 Math
Questionnaire Location:	TQM2_20Da-g
Source Variable:	BT4MTP33 to BT4MTP39

Procedure:	Based on responses to the following question in the Teacher Questionnaire:

The following list includes the main topics addressed by the TIMSS mathematics test. Choose the response that best describes when students in the TIMSS Class have been taught each topic. If a topic was taught half this year but not yet completed, please choose "Mostly taught this year". If a topic is not in the curriculum, please choose "Not yet taught or just introduced".

DATA AND CHANCE topics (TQM2_20Da-g; BT4MTP33, BT4MTP34, BT4MTP35, BT4MTP36, BT4MTP37, BT4MTP38; BT4MTP39)

Response options: Mostly taught before this year = 1; Mostly taught this year = 2; Not yet taught or just introduced = 3

Compute the percentage of students whose teachers responded "Mostly Taught Before This Year" OR "Mostly Taught This Year" for the individual topics. Following this compute the average across the percentages of students taught all DATA AND CHANCE topics mostly before this year or this year.

The derived variable is coded "MISSING" if there are more than one-third of the source questions with invalid data.

Trend Comments:

Derived Variable Name: btdmtpov	**Variable Label:** Summ Students Taught Overall Math Topics	**Grade:** Eighth

Title of International Report Exhibit:

Summary of Students Taught the TIMSS Mathematics Topics

Report Location:

5.5 Math

Questionnaire Location: TQM2_20Aa-j; TQM2_20Ba-h; TQM2_20Ca-n; TQM2_20Da-g

Source Variable: BT4MTP01 to BT4MTP10; BT4MTP11 to BT4MTP18; BT4MTP19 to BT4MTP32; BT4MTP33 to BT4MTP39

Procedure:

Based on responses to the following question in the Teacher Questionnaire:

The following list includes the main topics addressed by the TIMSS mathematics test. Choose the response that best describes when students in the TIMSS Class have been taught each topic. If a topic was taught half this year but not yet completed, please choose "Mostly taught this year". If a topic is not in the curriculum, please choose "Not yet taught or just introduced".

A. NUMBER topics (TQM2_20Aa-j; BT4MTP01, BT4MTP02, BT4MTP03, BT4MTP04, BT4MTP05, BT4MTP06, BT4MTP07, BT4MTP08, BT4MTP09, BT4MTP10)

B. ALGEBRA topics (TQM2_20Ba-h; BT4MTP11, BT4MTP12, BT4MTP13, BT4MTP14, BT4MTP15, BT4MTP16, BT4MTP17, BT4MTP18)

C. GEOMETRY topics (TQM2_20Ca-n; BT4MTP19, BT4MTP20, BT4MTP21, BT4MTP22, BT4MTP23, BT4MTP24, BT4MTP25, BT4MTP26, BT4MTP27, BT4MTP28, BT4MTP29, BT4MTP30, BT4MTP31, BT4MTP32)

D. DATA AND CHANCE topics (TQM2_20Da-g; BT4MTP33, BT4MTP34, BT4MTP35, BT4MTP36, BT4MTP37, BT4MTP38; BT4MTP39)

Response options: Mostly taught before this year = 1; Mostly taught this year = 2; Not yet taught or just introduced = 3

Compute the percentage of students whose teachers responded "Mostly Taught Before This Year" OR "Mostly Taught This Year" for the individual topics. Following this compute the average across the percentages of students taught all MATHEMATICS topics mostly before this year or this year.

The derived variable is coded "MISSING" if there are more than one-third of the source questions with invalid data.

Trend Comments:

Derived Variable Name: btdmcoll	**Variable Label:** Freq of Collaboration Among Math Teachers	**Grade:** Eighth

Title of International Report Exhibit:	Frequency of Collaboration Among Mathematics Teachers with Trends
Report Location:	6.5 Math
Questionnaire Location:	TQM2_8a,b,c,d
Source Variable:	BT4GOTDC, BT4GOTPM, BT4GOTVT, BT4GOTAT

Procedure:	Based on responses to the following question in the Teacher Questionnaire:
	How often do you have the following types of interactions with other teachers?
	Discussions about how to teach a particular concept (TQ2M_8a, BT4GOTDC)
	Working on preparing instructional materials (TQ2M_8b, BT4GOTPM)
	Visits to another teacher's classroom to observe his/her teaching (TQ2M_8c, BT4GOTVT)
	Informal observations of my classroom by another teacher (TQ2M_8d, BT4GOTAT)
	Response options: Never or almost never = 1; 2 or 3 times per month = 2; 1-3 times per week = 3; Daily or almost daily = 4
	1 = Never or Almost Never = Average is less than or equal to 1.4
	2 = 2 or 3 Times per Month = Average is greater than 1.4 and less than or equal to 2.4
	3 = At Least Weekly = Average is more than 2.4
	The derived variable is coded "MISSING" if there are 2 or more questions with invalid data.

Trend Comments:	Trends reported to 2003 in TIMSS 2007 international reports, but variable not released in previous cycles.

Derived Variable Name: btdmttnu	**Variable Label:** Tchs Feel Very Well Prepd On Numb Topics	**Grade:** Eighth

Title of International Report Exhibit:
Summary of Students Whose Teachers Feel "Very Well" Prepared to Teach the TIMSS Mathematics Topics

Report Location:
6.6 Math

Questionnaire Location: TQM2_7Aa-e

Source Variable:
BT4MTT01 to BT4MTT05

Procedure:
Based on responses to the following question in the Teacher Questionnaire:

How well prepared do you feel you are to teach the following mathematics topics?
NUMBER topics (TQ2M_7Aa-e; BT4MTT01,BT4MTT02,BT4MTT03,BT4MTT04,BT4MTT05)

Response options: Not applicable = 1; Very well prepared = 2; Somewhat prepared = 3; Not well prepared = 4

Compute the percentage of students whose teachers responded "Very well prepared" for the individual topics. Following this compute the average across the percentages of students whose teachers indicate feeling very well prepared to teach all NUMBER topics.

The derived variable is coded "MISSING" if there are more than one-third of the source questions with invalid data or teachers responded "Not applicable."

Trend Comments:

Derived Variable Name: btdmttal	**Variable Label:** Tchs Feel Very Well Prepd On Alge Topics	**Grade:** Eighth

Title of International Report Exhibit: Summary of Students Whose Teachers Feel "Very Well" Prepared to Teach the TIMSS Mathematics Topics

Report Location: 6.6 Math

Questionnaire Location: TQM2_7Ba-d

Source Variable: BT4MTT06 to BT4MTT09

Procedure: Based on responses to the following question in the Teacher Questionnaire:

How well prepared do you feel you are to teach the following mathematics topics?

ALGEBRA topics (TQM2_7Ba-d; BT4MTT06,BT4MTT07,BT4MTT08, BT4MTT09)

Response options: Not applicable = 1; Very well prepared = 2; Somewhat prepared = 3; Not well prepared = 4

Compute the percentage of students whose teachers responded "Very well prepared" for the individual topics. Following this compute the average across the percentages of students whose teachers indicate feeling very well prepared to teach all ALGEBRA topics.

The derived variable is coded "MISSING" if there are more than one-third of the source questions with invalid data or teachers responded "Not applicable."

Trend Comments:

Derived Variable Name: btdmttge   **Variable Label:** Tchs Feel Very Well Prepd On Geom Topics   **Grade:** Eighth

Title of International Report Exhibit:	Summary of Students Whose Teachers Feel "Very Well" Prepared to Teach the TIMSS Mathematics Topics
Report Location:	6.6 Math
Questionnaire Location:	TQM2_7Ca-f
Source Variable:	BT4MTT10 to BT4MTT15

Procedure:

Based on responses to the following question in the Teacher Questionnaire:

How well prepared do you feel you are to teach the following mathematics topics?

GEOMETRY topics (TQM2_7Ca-f; BT4MTT10,BT4MTT11,BT4MTT12, BT4MTT13,BT4MTT14,BT4MTT15)

Response options: Not applicable = 1; Very well prepared = 2; Somewhat prepared = 3; Not well prepared = 4

Compute the percentage of students whose teachers responded "Very well prepared" for the individual topics. Following this compute the average across the percentages of students whose teachers indicate feeling very well prepared to teach all GEOMETRY topics.

The derived variable is coded "MISSING" if there are more than one-third of the source questions with invalid data or teachers responded "Not applicable."

Trend Comments:

Derived Variable Name: btdmttda	**Variable Label:** Tchs Feel Very Well Prepd On Data Topics	**Grade:** Eighth

Title of International Report Exhibit:	Summary of Students Whose Teachers Feel "Very Well" Prepared to Teach the TIMSS Mathematics Topics

Report Location:	6.6 Math

Questionnaire Location:	TQM2_7Da-c

Source Variable:	BT4MTT16 to BT4MTT18

Procedure:	Based on responses to the following question in the Teacher Questionnaire:

How well prepared do you feel you are to teach the following mathematics topics?

DATA AND CHANCE topics (TQM2_7Da-c; BT4MTT16,BT4MTT17,BT4MTT18)

Response options: Not applicable = 1; Very well prepared = 2; Somewhat prepared = 3; Not well prepared = 4

Compute the percentage of students whose teachers responded "Very well prepared" for the individual topics. Following this compute the average across the percentages of students whose teachers indicate feeling very well prepared to teach all DATA AND CHANCE topics.

The derived variable is coded "MISSING" if there are more than one-third of the source questions with invalid data or teachers responded "Not applicable."

Trend Comments:	

Derived Variable Name: btdmttov	**Variable Label:** Tchs Feel Very Well Prepd On Math Topics	**Grade:** Eighth

Title of International Report Exhibit:

Summary of Students Whose Teachers Feel "Very Well" Prepared to Teach the TIMSS Mathematics Topics

Report Location:

6.6 Math

Questionnaire Location: TQM2_7Aa-e; TQM2_7Ba-d; TQM2_7Ca-f; TQM2_7Da-c

Source Variable:

BT4MTT01 to BT4MTT05; BT4MTT06 to BT4MTT09; BT4MTT10 to BT4MTT15; BT4MTT16 to BT4MTT18

Procedure:

Based on responses to the following question in the Teacher Questionnaire:

How well prepared do you feel you are to teach the following mathematics topics?

A. NUMBER topics (TQ2M_7Aa-e; BT4MTT01,BT4MTT02,BT4MTT03,BT4MTT04,BT4MTT05)

B. ALGEBRA topics (TQM2_7Ba-d; BT4MTT06,BT4MTT07,BT4MTT08, BT4MTT09)

C. GEOMETRY topics (TQM2_7Ca-f; BT4MTT10,BT4MTT11,BT4MTT12, BT4MTT13,BT4MTT14,BT4MTT15)

D. DATA AND CHANCE topics (TQM2_7Da-c; BT4MTT16,BT4MTT17,BT4MTT18)

Response options: Not applicable = 1; Very well prepared = 2; Somewhat prepared = 3; Not well prepared = 4

Compute the percentage of students whose teachers responded "Very well prepared" for the individual topics. Following this compute the average across the percentages of students whose teachers indicate feeling very well prepared to teach all MATHEMATICS topics.

The derived variable is coded "MISSING" if there are more than one-third of the source questions with invalid data or teachers responded "Not applicable."

Trend Comments:

Derived Variable Name: btdmstud	**Variable Label:** Class Size for Mathematics Instruction	**Grade:** Eighth

| **Title of International Report Exhibit:** | Class Size for Mathematics Instruction with Trends; |
| | Achievement and Class Size for Mathematics Instruction |

| **Report Location:** | 7.1; 7.2 Math |

| **Questionnaire Location:** | TQM2_13 |

| **Source Variable:** | BT4MSTUD |

Procedure:	Based on responses to the following question in the Teacher Questionnaire:
	How many students are in the TIMSS class for mathematics? (TQM2_13, BT4MSTUD)
	1 = 1-24 Students
	2 = 25-40 Students
	3 = 41 or More Students

| **Trend Comments:** | Released in 2003. |

Derived Variable Name: btdmcfl	**Variable Label:** Idx Tch Rpt Mth Clss WO Lim Fctrs (MCFL)	**Grade:** Eighth

Title of International Report Exhibit:	Index of Teachers' Reports on Teaching Mathematics Classes with Few or No Limitations on Instruction Due to Student Factors (MCFL)
Report Location:	7.3 Math
Questionnaire Location:	TQM2_18a,b,c,d,e
Source Variable:	BT4MLI01, BT4MLI02, BT4MLI03, BT4MLI04, BT4MLI05
Procedure:	Based on responses to the following question in the Teacher Questionnaire:

In your view, to what extent do the following limit how you teach mathematics to the TIMSS class?

Students with different academic abilities (TQM2_18a, BT4MLI01)

Students who come from a wide range of backgrounds (TQM2_18b, BT4MLI02)

Students with special needs (TQM2_18c, BT4MLI03)

Uninterested students (TQM2_18d, BT4MLI04)

Disruptive students (TQM2_18e, BT4MLI05)

Response options: Not applicable = 1; Not at all = 2; A little = 3; Some = 4; A lot = 5

(Recode "not applicable"/"not at all" to 1, "a little" to 2, "Some" to 3; "a lot" to 4)

1 = High = Average is less than or equal to 2

2 = Medium = Average is greater than 2 and less than 3

3 = Low = Average is greater than or equal to 3

The index is coded missing if there are 2 or more questions with invalid data.

Trend Comments:	Released in 2003 as btdmlt. Please note that the 2003 index calculation used data from one more question. The item "low morale among students" was included in the 2003 index calculation, but not in the 2007 index calculation.

Derived Variable Name: btdmemh	**Variable Label:** Idx Tchr Emphasis on Math Homework (EMH)	**Grade:** Eighth

Title of International Report Exhibit:	Index of Teachers' Emphasis on Mathematics Homework (EMH) with Trends

Report Location:	7.12 Math

Questionnaire Location:	TQM2_25; TQM2_26; TQM2_27

Source Variable:	BT4MHMWO, BT4MHWMC, BT4MHWKM

Procedure:	Based on responses to the following questions in the Teacher Questionnaire:

Do you assign mathematics homework to the TIMSS class? (TQM2_25, BT4MHMWO)

Response options: Yes = 1; No = 2

How often do you usually assign mathematics homework to the TIMSS class? (TQM2_26, BT4MHWMC)

Response options: Every lesson or almost every lesson = 1; About half the lessons = 2; Some lessons = 3

When you assign mathematics homework to the TIMSS class, about how many minutes do you usually assign? (Consider the time it would take an average student in your class.) (TQM2_27, BT4MHWKM)

Response options: Fewer than 15 minutes = 1; 15-30 minutes = 2; 31-60 minutes = 3; 61-90 minutes = 4; More than 90 minutes = 5

1 = High = Responded other than "No" to BT4MHMWO and responded "every or almost every lesson" or "about half the lessons" to BT4MHWMC and "31-60 minutes" or "61-90 minutes" or "More than 90 minutes" to BT4MHWKM

2 = Medium = All other response combinations

3 = Low = Responded "No" to BT4MHMWO or responded other than "No" to BT4MHMWO and "about half the lessons" or "some lessons" to BT4MHWMC and "Fewer than 15 minutes" or "15-30 minutes" to BT4MHWKM

The index is coded as missing if BT4MHWMC or BT4MHWKM are "MISSING".

Trend Comments:	Released in 2003 as btdmh.

Derived Variable Name: btdmtawc	**Variable Label:** Idx MatT Adequate Work Cond (M-TAWC)	**Grade:** Eighth

Title of International Report Exhibit: Index of Teachers' Adequate Working Conditions (TAWC)

Report Location: 8.9 Math

Questionnaire Location: TQM2_11a,b,c

Source Variable: BT4GSPBR, BT4GSPCO, BT4GSPWO

Procedure: Based on responses to the following question in the Teacher Questionnaire:

In your current school, how severe is each problem?

The school building needs significant repair (TQM2_11a, BT4GSPBR)

Classrooms are overcrowded (TQM2_11b, BT4GSPCO)

Teachers do not have adequate workspace outside their classroom (TQM2_11c, BT4GSPWO)

Response options: Not a problem = 1; Minor Problem = 2; Serious Problem = 3

1 = High = Average is equal to 1

2 = Medium = Average value is greater than 1 and less than or equal to 2

3 = Low = Average value is more than 2

The index is coded as missing if there are 2 or more source questions with invalid data.

Trend Comments:

| **Derived Variable Name:** btdmtpsc | **Variable Label:** Idx MathT Percept School Climate (M-TPSC) | **Grade:** Eighth |

Title of International Report Exhibit:
Index of Mathematics Teachers' Perception of School Climate (TPSC) with Trends

Report Location:
8.12 Math

Questionnaire Location: TQM2_12a-h

Source Variable:
BT4GCHTS, BT4GCHTU, BT4GCHTC, BT4GCHES, BT4GCHPS, BT4GCHPI, BT4GCHSR, BT4GCHSD

Procedure:
Based on responses to the following question in the Teacher Questionnaire:

How would you characterize each of the following within your school?

Teachers' job satisfaction (TQM2_12a, BT4GCHTS)

Teachers' understanding of the school's curricular goals (TQM2_12b, BT4GCHTU)

Teachers' degree of success in implementing the school's curriculum (TQM2_12c, BT4GCHTC)

Teachers' expectations for student achievement (TQM2_12d, BT4GCHES)

Parental support for student achievement (TQM2_12e, BT4GCHPS)

Parental involvement in school activities (TQM2_12f, BT4GCHPI)

Students' regard for school property (TQM2_12g, BT4GCHSR)

Students' desire to do well in school (TQM2_12h, BT4GCHSD)

Response options: Very high = 1; High = 2; Medium = 3; Low = 4; Very low = 5

1 = High = Average value is less than or equal to 2

2 = Medium = Average value is greater than 2 and less than or equal to 3

3 = Low = Average value is greater than 3

The index is coded as missing if there are 3 or more source questions with invalid data.

Trend Comments:
Released in 2003 as btdmch.

Derived Variable Name: btdmtpss	**Variable Label:** Idx Math Tchr Prcptn Schl Safety (M-TPSS)	**Grade:** Eighth

Title of International Report Exhibit: Index of Mathematics Teachers' Perception of Safety in School (TPSS) with Trends

Report Location: 8.13 Math

Questionnaire Location: TQM2_10a,b,c

Source Variable: BT4GCUSN, BT4GCUSA, BT4GCUAS

Procedure: Based on responses to the following question in the Teacher Questionnaire:

Thinking about your current school, indicate the extent to which you agree or disagree with each of the following statements.

This school is located in a safe neighborhood (TQM2_10a, BT4GCUSN)

I feel safe at this school (TQM2_10b, BT4GCUSA)

This school's security policies and practices are sufficient (TQM2_10c, BT4GCUAS)

Response options: Agree a lot = 1; Agree = 2; Disagree = 3; Disagree a lot = 4

1 = High = Responded "Agree a lot" or "agree" to all three statements

2 = Medium = All other combinations

3 = Low = Responded "Disagree" or "Disagree a lot" to all three statements

The index is coded as missing if there are 2 or more source questions with invalid data.

Trend Comments: Released in 2003 as btdmcu.

Eighth Grade Science Teacher Questionnaire

Section 6

Derived Variable Name: btdsptit	**Variable Label:** Sci Time As Percent of Total Instr Time	**Grade:** Eighth

Title of International Report Exhibit: Weekly Intended and Implemented Instructional Time for Science with Trends

Report Location: 5.2 Science

Questionnaire Location: SCQ2_5Bab, SCQ2_5C, TQS2_14

Source Variable: BC4GHTIT, BC4GMTIT, BC4GDSOI, BT4STIMT

Procedure: Based on responses to the following questions in the School Questionnaire:

What is the total instructional time, excluding breaks, in a typical day?

A. Hours (SCQ2_5Ba, BC4GHTIT)

B. Minutes (SCQ2_5Bb, BC4GMTIT)

In one calendar week, how many days is the school open for instruction? (SCQ2_5C, BC4GDSOI)

Response options: 6 days = 1; 5 1/2 days =2; 5 days = 3; 4 1/2 days = 4; 4 days = 5; other = 6

And on responses to the following question in the Teacher Questionnaire:

How many minutes per week do you teach science to the TIMSS class? (TQS2_14, BT4STIMT)

The derived variable (science instructional time as a percent of total instructional time) is computed as follows:

Step 1: Recode BC4GDSOI as follows: 6 (Option 1) and 5 1/2 (Option 2) to 6, 5 (Option 3) and 4 1/2 (Option 4) to 5 and "Other" (Option 6) to "MISSING"

Step 2: Compute average total hours of instructional time per week: BC4GDSOI (recoded in Step 1)* [BC4GHTIT +(BC4GMTIT/60)]

Step 3: Compute science instructional hours/week: BT4STIMT/60

Step 4: Result of Step 3 multiplied by 100 and divided by result of Step 2

Use BC4GHTIT if BC4GMTIT is "MISSING". Use BC4GMTIT/60 if BC4GHTIT is "MISSING".

Trend Comments: Trends reported to 2003 in TIMSS 2007 international reports, but variable not released in previous cycles.

Derived Variable Name: btdsyit	**Variable Label:** Science Yearly Instructional Time	**Grade:** Eighth

Title of International Report Exhibit: Yearly Hours of Implemented Instructional Time for Science with Trends

Report Location: 5.3 Science

Questionnaire Location: SCQ2_5A, SCQ2_5C, TQS2_14

Source Variable: BC4GDYSO, BC4GDSOI, BT4STIMT

Procedure: Based on responses to the following questions in the School Questionnaire:

How many days per year is your school open for instruction? (SCQ2_5A, BC4GDYSO)

In one calendar week, how many days is the school open for instruction? (SCQ2_5C, BC4GDSOI)

Response options: 6 days = 1; 5 1/2 days =2; 5 days = 3; 4 1/2 days = 4; 4 days = 5; other = 6

And on responses to the following question in the Teacher Questionnaire:

How many minutes per week do you teach science to the TIMSS class? (TQS2_14, BT4STIMT)

The derived variable (yearly hours of science instructional time) is computed as follows:

Step 1: Recode BC4GDSOI as follows: 6 (Option 1) and 5 1/2 (Option 2) to 6, 5 (Option 3) and 4 1/2 (Option 4) to 5 and "Other" (Option 6) to "MISSING"

Step 2: Compute total instructional weeks/year: BC4GDYSO/BC4GDSOI (recoded in Step 1) (Set "total instructional weeks per year" to missing if less than 30 or more than 48)

Step 3: Compute science instructional hours/week: BT4STIMT/60

Step 4: Compute science instructional hours/year: Result of Step 2 multiplied by result of Step 3

The derived variable is coded "MISSING" if "total instructional weeks per year" or BT4STIMT is "MISSING".

Trend Comments: Trends reported to 2003 in TIMSS 2007 international reports, but variable not released in previous cycles.

| **Derived Variable Name:** btdstpbi | **Variable Label:** Summ Students Taught Biology Sci Topics | **Grade:** Eighth |

Title of International Report Exhibit:

Summary of Students Taught the TIMSS Science Topics

Report Location:

5.6 Science

Questionnaire Location: TQS2_20Aa-n

Source Variable:

BT4STP01 to BT4STP14

Procedure:

Based on responses to the following question in the Teacher Questionnaire:

The following list includes the main topics addressed by the TIMSS science test. Choose the response that best describes when students in the TIMSS Class have been taught each topic. If a topic was taught half this year but not yet completed, please choose "Mostly taught this year". If a topic is not in the curriculum, please choose "Not yet taught or just introduced".

BIOLOGY topics (TQS2_20Aa-n; BT4STP01, BT4STP02, BT4STP03, BT4STP04, BT4STP05, BT4STP06, BT4STP07, BT4STP08, BT4STP09, BT4STP10, BT4STP11, BT4STP12, BT4STP13, BT4STP14)

Response options: Mostly taught before this year = 1; Mostly taught this year = 2; Not yet taught or just introduced = 3

Compute the percentage of students whose teachers responded "Mostly Taught Before This Year" OR "Mostly Taught This Year" for the individual topics. Following this compute the average across the percentages of students taught all BIOLOGY topics mostly before this year or this year.

The derived variable is coded "MISSING" if there are more than one-third of the source questions with invalid data.

Trend Comments:

Derived Variable Name: btdstpch   **Variable Label:** Summ Students Taught Chemist Sci Topics   **Grade:** Eighth

Title of International Report Exhibit:	Summary of Students Taught the TIMSS Science Topics
Report Location:	5.6 Science
Questionnaire Location:	TQS2_20Ba-h
Source Variable:	BT4STP15 to BT4STP22

Procedure: Based on responses to the following question in the Teacher Questionnaire:

The following list includes the main topics addressed by the TIMSS science test. Choose the response that best describes when students in the TIMSS Class have been taught each topic. If a topic was taught half this year but not yet completed, please choose "Mostly taught this year". If a topic is not in the curriculum, please choose "Not yet taught or just introduced".

CHEMISTRY topics (TQS2_20Ba-h; BT4STP15, BT4STP16, BT4STP17, BT4STP18, BT4STP19, BT4STP20, BT4STP21, BT4STP22)

Response options: Mostly taught before this year = 1; Mostly taught this year = 2; Not yet taught or just introduced = 3

Compute the percentage of students whose teachers responded "Mostly Taught Before This Year" OR "Mostly Taught This Year" for the individual topics. Following this compute the average across the percentages of students taught all CHEMISTRY topics mostly before this year or this year.

The derived variable is coded "MISSING" if there are more than one-third of the source questions with invalid data.

Trend Comments:

Derived Variable Name: btdstpph	**Variable Label:** Summ Students Taught Physics Sci Topics	**Grade:** Eighth

Title of International Report Exhibit:	Summary of Students Taught the TIMSS Science Topics

Report Location:	5.6 Science

Questionnaire Location:	TQS2_20Ca-j

Source Variable:	BT4STP23 to BT4STP32

Procedure:	Based on responses to the following question in the Teacher Questionnaire:

The following list includes the main topics addressed by the TIMSS science test. Choose the response that best describes when students in the TIMSS Class have been taught each topic. If a topic was taught half this year but not yet completed, please choose "Mostly taught this year". If a topic is not in the curriculum, please choose "Not yet taught or just introduced".

PHYSICS topics (TQS2_20Ca-j; BT4STP23, BT4STP24, BT4STP25, BT4STP26, BT4STP27, BT4STP28, BT4STP29, BT4STP30, BT4STP31, BT4STP32)

Response options: Mostly taught before this year = 1; Mostly taught this year = 2; Not yet taught or just introduced = 3

Compute the percentage of students whose teachers responded "Mostly Taught Before This Year" OR "Mostly Taught This Year" for the individual topics. Following this compute the average across the percentages of students taught all PHYSICS topics mostly before this year or this year.

The derived variable is coded "MISSING" if there are more than one-third of the source questions with invalid data.

Trend Comments:

Derived Variable Name: btdstpes	**Variable Label:** Summ Students Taught Earth Sci Topics	**Grade:** Eighth

Title of International Report Exhibit:

Summary of Students Taught the TIMSS Science Topics

Report Location:

5.6 Science

Questionnaire Location: TQS2_20Da-n

Source Variable:

BT4STP33 to BT4STP46

Procedure:

Based on responses to the following question in the Teacher Questionnaire:

The following list includes the main topics addressed by the TIMSS science test. Choose the response that best describes when students in the TIMSS Class have been taught each topic. If a topic was taught half this year but not yet completed, please choose "Mostly taught this year". If a topic is not in the curriculum, please choose "Not yet taught or just introduced".

EARTH SCIENCE topics (TQS2_20Da-n; BT4STP33, BT4STP34, BT4STP35, BT4STP36, BT4STP37, BT4STP38, BT4STP39, BT4STP40, BT4STP41, BT4STP42, BT4STP43, BT4STP44, BT4STP45, BT4STP46)

Response options: Mostly taught before this year = 1; Mostly taught this year = 2; Not yet taught or just introduced = 3

Compute the percentage of students whose teachers responded "Mostly Taught Before This Year" OR "Mostly Taught This Year" for the individual topics. Following this compute the average across the percentages of students taught all EARTH SCIENCE topics mostly before this year or this year.

The derived variable is coded "MISSING" if there are more than one-third of the source questions with invalid data.

Trend Comments:

Derived Variable Name: btdstpov	**Variable Label:** Summ Students Taught Overall Sci Topics	**Grade:** Eighth

Title of International Report Exhibit: Summary of Students Taught the TIMSS Science Topics

Report Location: 5.6 Science

Questionnaire Location: TQS2_20Aa-n; TQS2_20Ba-h; TQS2_20Ca-j; TQS2_20Da-n

Source Variable: BT4STP01 to BT4STP14; BT4STP15 to BT4STP22; BT4STP23 to BT4STP32; BT4STP33 to BT4STP46

Procedure: Based on responses to the following question in the Teacher Questionnaire:

The following list includes the main topics addressed by the TIMSS science test. Choose the response that best describes when students in the TIMSS Class have been taught each topic. If a topic was taught half this year but not yet completed, please choose "Mostly taught this year". If a topic is not in the curriculum, please choose "Not yet taught or just introduced".

A. BIOLOGY topics (TQS2_20Aa-n; BT4STP01, BT4STP02, BT4STP03, BT4STP04, BT4STP05, BT4STP06, BT4STP07, BT4STP08, BT4STP09, BT4STP10, BT4STP11, BT4STP12, BT4STP13, BT4STP14)

B. CHEMISTRY topics (TQS2_20Ba-h; BT4STP15, BT4STP16, BT4STP17, BT4STP18, BT4STP19, BT4STP20, BT4STP21, BT4STP22)

C. PHYSICS topics (TQS2_20Ca-j; BT4STP23, BT4STP24, BT4STP25, BT4STP26, BT4STP27, BT4STP28, BT4STP29, BT4STP30, BT4STP31, BT4STP32)

D. EARTH SCIENCE topics (TQS2_20Da-n; BT4STP33, BT4STP34, BT4STP35, BT4STP36, BT4STP37, BT4STP38, BT4STP39, BT4STP40, BT4STP41, BT4STP42, BT4STP43, BT4STP44, BT4STP45, BT4STP46)

Response options: Mostly taught before this year = 1; Mostly taught this year = 2; Not yet taught or just introduced = 3

Compute the percentage of students whose teachers responded "Mostly Taught Before This Year" OR "Mostly Taught This Year" for the individual topics. Following this compute the average across the percentages of students taught all SCIENCE topics mostly before this year or this year.

The derived variable is coded "MISSING" if there are more than one-third of the source questions with invalid data.

Trend Comments:

Derived Variable Name: btdspssc	**Variable Label:** Major in Bio, Phy, Che, or Esci	**Grade:** Eighth

Title of International Report Exhibit:	Teachers' Educational Emphasis on Science and Teaching

Report Location:	6.3 Science

Questionnaire Location:	TQS2_5a,b,c,d

Source Variable:	BT4SPSBI, BT4SPSPH, BT4SPSCH, BT4SPSES

Procedure:	Based on responses to the following question in the Teacher Questionnaire:

During your <post-secondary education>, what was your major or main area(s) of study?

Biology (TQS2_5a, BT4SPSBI)

Physics (TQS2_5b, BT4SPSPH)

Chemistry (TQS2_5c, BT4SPSCH)

<Earth Science> (TQS2_5d, BT4SPSES)

Response options: Yes = 1; No = 2

1 = Yes = Responded "Yes" to BT4SPSBI or BT4SPSPH or BT4SPSCH or BT4SPSES

2 = No = Responded "No" to BT4SPSBI and BT4SPSPH and BT4SPSCH and BT4SPSES

Trend Comments:	Released in 2003.

Derived Variable Name: btdscoll	**Variable Label:** Freq of Collaboration Among Sci Teachers	**Grade:** Eighth

Title of International Report Exhibit:	Frequency of Collaboration Among Science Teachers with Trends
Report Location:	6.6 Science
Questionnaire Location:	TQS2_8a,b,c,d
Source Variable:	BT4GOTDC, BT4GOTPM, BT4GOTVT, BT4GOTAT

Procedure:

Based on responses to the following question in the Teacher Questionnaire:

How often do you have the following types of interactions with other teachers?

Discussions about how to teach a particular concept (TQ2S_8a, BT4GOTDC)

Working on preparing instructional materials (TQ2S_8b, BT4GOTPM)

Visits to another teacher's classroom to observe his/her teaching (TQ2S_8c, BT4GOTVT)

Informal observations of my classroom by another teacher (TQ2S_8d, BT4GOTAT)

Response options: Never or almost never = 1; 2 or 3 times per month = 2; 1-3 times per week = 3; Daily or almost daily = 4

1 = Never or Almost Never = Average is less than or equal to 1.4

2 = 2 or 3 Times per Month = Average is greater than 1.4 and less than or equal to 2.4

3 = At Least Weekly = Average is more than 2.4

The derived variable is coded "MISSING" if there are 2 or more questions with invalid data.

Trend Comments:

Trends reported to 2003 in TIMSS 2007 international reports, but variable not released in previous cycles.

Derived Variable Name: btdsttbi	**Variable Label:** Tchs Feel Very Well Prepd On Biol Topics	**Grade:** Eighth

Title of International Report Exhibit: Summary of Students Whose Teachers Feel "Very Well" Prepared to Teach the TIMSS Science Topics

Report Location: 6.7 Science

Questionnaire Location: TQS2_7Aa-g

Source Variable: BT4STT01 to BT4STT07

Procedure: Based on responses to the following question in the Teacher Questionnaire:

How well prepared do you feel you are to teach the following science topics?

BIOLOGY topics (TQS2_7Aa-g; BT4STT01, BT4STT02, BT4STT03, BT4STT04, BT4STT05, BT4STT06, BT4STT07)

Response options: Not applicable = 1; Very well prepared = 2; Somewhat prepared = 3; Not well prepared = 4

Compute the percentage of students whose teachers responded "Very well prepared" for the individual topics. Following this compute the average across the percentages of students whose teachers indicate feeling very well prepared to teach all BIOLOGY topics.

The derived variable is coded "MISSING" if there are more than one-third of the source questions with invalid data or teachers responded "Not applicable."

Trend Comments:

Derived Variable Name: btdsttch	**Variable Label:** Tchs Feel Very Well Prepd On Chem Topics	**Grade:** Eighth

Title of International Report Exhibit:	Summary of Students Whose Teachers Feel "Very Well" Prepared to Teach the TIMSS Science Topics

Report Location:	6.7 Science

Questionnaire Location:	TQS2_7Ba-e

Source Variable:	BT4STT08 to BT4STT12

Procedure: Based on responses to the following question in the Teacher Questionnaire:

How well prepared do you feel you are to teach the following science topics?
CHEMISTRY topics (TQS2_7Ba-e; BT4STT08, BT4STT09, BT4STT10, BT4STT11, BT4STT12)

Response options: Not applicable = 1; Very well prepared = 2; Somewhat prepared = 3; Not well prepared = 4

Compute the percentage of students whose teachers responded "Very well prepared" for the individual topics. Following this compute the average across the percentages of students whose teachers indicate feeling very well prepared to teach all CHEMISTRY topics.

The derived variable is coded "MISSING" if there are more than one-third of the source questions with invalid data or teachers responded "Not applicable."

Trend Comments:

Derived Variable Name: btdsttph	**Variable Label:** Tchs Feel Very Well Prepd On Phys Topics	**Grade:** Eighth

Title of International Report Exhibit: Summary of Students Whose Teachers Feel "Very Well" Prepared to Teach the TIMSS Science Topics

Report Location: 6.7 Science

Questionnaire Location: TQS2_7Ca-f

Source Variable: BT4STT13 to BT4STT18

Procedure: Based on responses to the following question in the Teacher Questionnaire:

How well prepared do you feel you are to teach the following science topics?

PHYSICS topics (TQS2_7Ca-f; BT4STT13, BT4STT14, BT4STT15, BT4STT16, BT4STT17, BT4STT18)

Response options: Not applicable = 1; Very well prepared = 2; Somewhat prepared = 3; Not well prepared = 4

Compute the percentage of students whose teachers responded "Very well prepared" for the individual topics. Following this compute the average across the percentages of students whose teachers indicate feeling very well prepared to teach all PHYSICS topics.

The derived variable is coded "MISSING" if there are more than one-third of the source questions with invalid data or teachers responded "Not applicable."

Trend Comments:

| **Derived Variable Name:** btdsttes | **Variable Label:** Tchs Feel Very Well Prepd On ESci Topics | **Grade:** Eighth |

Title of International Report Exhibit: Summary of Students Whose Teachers Feel "Very Well" Prepared to Teach the TIMSS Science Topics

Report Location: 6.7 Science

Questionnaire Location: TQS2_7Da-e

Source Variable: BT4STT19 to BT4STT23

Procedure: Based on responses to the following question in the Teacher Questionnaire:

How well prepared do you feel you are to teach the following science topics?

EARTH SCIENCE topics (TQS2_7Da-e; BT4STT19, BT4STT20, BT4STT21, BT4STT22, BT4STT23)

Response options: Not applicable = 1; Very well prepared = 2; Somewhat prepared = 3; Not well prepared = 4

Compute the percentage of students whose teachers responded "Very well prepared" for the individual topics. Following this compute the average across the percentages of students whose teachers indicate feeling very well prepared to teach all EARTH SCIENCE topics.

The derived variable is coded "MISSING" if there are more than one-third of the source questions with invalid data or teachers responded "Not applicable."

Trend Comments:

Derived Variable Name: btdsttov	**Variable Label:** Tchs Feel Very Well Prepd On Sci Topics	**Grade:** Eighth

Title of International Report Exhibit: Summary of Students Whose Teachers Feel "Very Well" Prepared to Teach the TIMSS Science Topics

Report Location: 6.7 Science

Questionnaire Location: TQS2_7Aa-g; TQS2_7Ba-e; TQS2_7Ca-f; TQS2_7Da-e

Source Variable: BT4STT01 to BT4STT07; BT4STT08 to BT4STT12; BT4STT13 to BT4STT18; BT4STT19 to BT4STT23

Procedure: Based on responses to the following question in the Teacher Questionnaire:

How well prepared do you feel you are to teach the following science topics?

A. BIOLOGY topics (TQS2_7Aa-g; BT4STT01, BT4STT02, BT4STT03, BT4STT04, BT4STT05, BT4STT06, BT4STT07)

B. CHEMISTRY topics (TQS2_7Ba-e; BT4STT08, BT4STT09, BT4STT10, BT4STT11, BT4STT12)

C. PHYSICS topics (TQS2_7Ca-f; BT4STT13, BT4STT14, BT4STT15, BT4STT16, BT4STT17, BT4STT18)

D. EARTH SCIENCE topics (TQS2_7Da-e; BT4STT19, BT4STT20, BT4STT21, BT4STT22, BT4STT23)

Response options: Not applicable = 1; Very well prepared = 2; Somewhat prepared = 3; Not well prepared = 4

Compute the percentage of students whose teachers responded "Very well prepared" for the individual topics. Following this compute the average across the percentages of students whose teachers indicate feeling very well prepared to teach all SCIENCE topics.

The derived variable is coded "MISSING" if there are more than one-third of the source questions with invalid data or teachers responded "Not applicable."

Trend Comments:

Derived Variable Name: btdsstud	**Variable Label:** Class Size for Science Instruction	**Grade:** Eighth

Title of International Report Exhibit:	Class Size for Science Instruction with Trends;
	Achievement and Class Size for Science Instruction

Report Location:	7.1; 7.2 Science

Questionnaire Location:	TQS2_13

Source Variable:	BT4SSTUD

Procedure:	Based on responses to the following question in the Teacher Questionnaire:
	How many students are in the <TIMSS class/class with the TIMSS students> for science? (TQS2_13, BT4SSTUD)
	1 = 1-24 Students
	2 = 25-40 Students
	3 = 41 or More Students

Trend Comments:	Released in 2003.

Derived Variable Name: btdscfl	**Variable Label:** Idx Tch Rpt Sci Clss WO Lim Fctrs (SCFL)	**Grade:** Eighth

Title of International Report Exhibit: Index of Teachers' Reports on Teaching Science Classes with Few or No Limitations on Instruction due to Student Factors (SCFL)

Report Location: 7.3 Science

Questionnaire Location: TQS2_18a,b,c,d,e

Source Variable: BT4SLI01, BT4SLI02, BT4SLI03, BT4SLI04, BT4SLI05

Procedure: Based on responses to the following question in the Teacher Questionnaire:

In your view, to what extent do the following limit how you teach science to the TIMSS class?

Students with different academic abilities (TQS2_18a, BT4SLI01)

Students who come from a wide range of backgrounds (TQS2_18b, BT4SLI02)

Students with special needs (TQS2_18c, BT4SLI03)

Uninterested students (TQS2_18d, BT4SLI04)

Disruptive students (TQS2_18e, BT4SLI05)

Response options: Not applicable = 1; Not at all = 2; A little = 3; Some = 4; A lot = 5

(Recode "not applicable"/"not at all" to 1, "a little" to 2, "Some" to 3; "a lot" to 4)

1 = High = Average is less than or equal to 2

2 = Medium = Average is greater than 2 and less than 3

3 = Low = Average is greater than or equal to 3

The index is coded missing if there are 2 or more questions with invalid data

Trend Comments: Released in 2003 as btdslt. Please note that the 2003 index calculation used data from one more question. The item "low morale among students" was included in the 2003 index calculation, but not in the 2007 index calculation.

Derived Variable Name: btdsesh	**Variable Label:** Idx Tchr Emphasis on Sci Homework (ESH)	**Grade:** Eighth

Title of International Report Exhibit: Index of Teachers' Emphasis on Science Homework (ESH) with Trends

Report Location: 7.11 Science

Questionnaire Location: TQS2_23; TQS2_24; TQS2_25

Source Variable: BT4SHMWO, BT4SHWMC, BT4SHWKM

Procedure: Based on responses to the following questions in the Teacher Questionnaire:

Do you assign science homework to the TIMSS class? (TQS2_23, BT4SHMWO)

Response options: Yes = 1; No = 2

How often do you usually assign science homework to the TIMSS class? (TQS2_24, BT4SHWMC)

Response options: Every lesson or almost every lesson = 1; About half the lessons = 2; Some lessons = 3

When you assign science homework to the TIMSS class, about how many minutes do you usually assign? (Consider the time it would take an average student in your class.) (TQS2_25, BT4SHWKM)

Response options: Fewer than 15 minutes = 1; 15-30 minutes = 2; 31-60 minutes = 3; 61-90 minutes = 4; More than 90 minutes = 5

1 = High = Responded other than "No" to BT4SHMWO and responded "every or almost every lesson" or "about half the lessons" to BT4SHWMC and "31-60 minutes" or "61-90 minutes" or "More than 90 minutes" to BT4SHWKM

2 = Medium = All other response combinations

3 = Low = Responded "No" to BT4SHMWO or responded other than "No" to BT4SHMWO and "about half the lessons" or "some lessons" to BT4MHWMC and "Fewer than 15 minutes" or "15-30 minutes" to BT4SHWKM

The index is coded as missing if BT4SHWMC or BT4SHWKM are "MISSING".

Trend Comments: Released in 2003 as btdsh.

Derived Variable Name: btdstawc	**Variable Label:** Idx SciT Adequate Work Cond (S-TAWC)	**Grade:** Eighth

Title of International Report Exhibit:	Index of Teachers' Adequate Working Conditions (TAWC)

Report Location:	8.10 Science

Questionnaire Location:	TQS2_11a,b,c,d

Source Variable:	BT4GSPBR, BT4GSPCO, BT4GSPWO, BT4GSPME

Procedure:	Based on responses to the following question in the Teacher Questionnaire:

In your current school, how severe is each problem?

The school building needs significant repair (TQS2_11a, BT4GSPBR)

Classrooms are overcrowded (TQS2_11b, BT4GSPCO)

Teachers do not have adequate workspace outside their classroom (TQS2_11c, BT4GSPWO)

Materials are not available to conduct science experiments or investigations (TQS2_11d, BT4GSPME)

Response options: Not a problem = 1; Minor Problem = 2; Serious Problem = 3

1 = High = Average is equal to 1

2 = Medium = Average value is greater than 1 and less than or equal to 2

3 = Low = Average value is more than 2

The index is coded as missing if there are 2 or more source questions with invalid data.

Trend Comments:	

Derived Variable Name: btdstpsc	**Variable Label:** Idx SciT Percept School Climate (S-TPSC)	**Grade:** Eighth

Title of International Report Exhibit: Index of Science Teachers' Perception of School Climate (TPSC) with Trends

Report Location: 8.13 Science

Questionnaire Location: TQS2_12a-h

Source Variable: BT4GCHTS, BT4GCHTU, BT4GCHTC, BT4GCHES, BT4GCHPS, BT4GCHPI, BT4GCHSR, BT4GCHSD

Procedure: Based on responses to the following question in the Teacher Questionnaire:

How would you characterize each of the following within your school?

Teachers' job satisfaction (TQS2_12a, BT4GCHTS)

Teachers' understanding of the school's curricular goals (TQS2_12b, BT4GCHTU)

Teachers' degree of success in implementing the school's curriculum (TQS2_12c, BT4GCHTC)

Teachers' expectations for student achievement (TQS2_12d, BT4GCHES)

Parental support for student achievement (TQS2_12e, BT4GCHPS)

Parental involvement in school activities (TQS2_12f, BT4GCHPI)

Students' regard for school property (TQS2_12g, BT4GCHSR)

Students' desire to do well in school (TQS2_12h, BT4GCHSD)

Response options: Very high = 1; High = 2; Medium = 3; Low = 4; Very low = 5

1 = High = Average value is less than or equal to 2

2 = Medium = Average value is greater than 2 and less than or equal to 3

3 = Low = Average value is greater than 3

The index is coded as missing if there are 3 or more source questions with invalid data.

Trend Comments: Released in 2003 as btdsch.

| **Derived Variable Name:** btdstpss | **Variable Label:** Idx Sci Tchr Prcptn Schl Safety (S-TPSS) | **Grade:** Eighth |

Title of International Report Exhibit:	Index of Science Teachers' Perception of Safety in School (TPSS) with Trends
Report Location:	8.14 Science
Questionnaire Location:	TQS2_10a,b,c
Source Variable:	BT4GCUSN, BT4GCUSA, BT4GCUAS

Procedure: Based on responses to the following question in the Teacher Questionnaire:

Thinking about your current school, indicate the extent to which you agree or disagree with each of the following statements.

This school is located in a safe neighborhood (TQS2_10a, BT4GCUSN)

I feel safe at this school (TQS2_10b, BT4GCUSA)

This school's security policies and practices are sufficient (TQS2_10c, BT4GCUAS)

Response options: Agree a lot = 1; Agree = 2; Disagree = 3; Disagree a lot = 4

1 = High = Responded "Agree a lot" or "agree" to all three statements

2 = Medium = All other combinations

3 = Low = Responded "Disagree" or "Disagree a lot" to all three statements

The index is coded as missing if there are 2 or more source questions with invalid data.

Trend Comments: Released in 2003 as btdscu.

Eighth Grade
School Questionnaire

Section 7

Derived Variable Name: bcdghw	**Variable Label:** Total Hours Instructional Time per Week	**Grade:** Eighth

Title of International Report Exhibit:

Weekly Intended and Implemented Instructional Time for Mathematics with Trends

Weekly Intended and Implemented Instructional Time for Science with Trends

Report Location:

5.1 Math

5.2 Science

Questionnaire Location: SCQ2_5Bab; SCQ2_5C

Source Variable:

BC4GHTIT, BC4GMTIT, BC4GDSOI

Procedure:

Based on responses to the following question in the School Questionnaire:

What is the total instructional time, excluding breaks, in a typical day?

A. Hours (SCQ2_5Ba, BC4GHTIT)

B. Minutes (SCQ2_5Bb, BC4GMTIT)

In one calendar week, how many days is the school open for instruction? (SCQ2_5C, BC4GDSOI)

Response options: 6 days = 1; 5 1/2 days =2; 5 days = 3; 4 1/2 days = 4; 4 days = 5; other = 6

The derived variable (hours of instructional time per week) is computed as follows:

Step 1: Recode BC4GDSOI as follows: 6 (Option 1) and 5 1/2 (Option 2) to 6, 5 (Option 3) and 4 1/2 (Option 4) to 5 and "Other" (Option 6) to "MISSING"

Step 2: Compute average total hours of instructional time per week: BC4GDSOI (recoded in Step 1) * [BC4GHTIT +(BC4GMTIT/60)]

Use BC4GHTIT if BC4GMTIT is "MISSING". Use BC4GMTIT/60 if BC4GHTIT is "MISSING".

Trend Comments:

Trends reported to 2003 in TIMSS 2007 international reports, but variable not released in previous cycles.

Derived Variable Name: bcdgas	**Variable Label:** Idx Good Attendance at School (GAS)	**Grade:** Eighth

Title of International Report Exhibit:	Index of Good Attendance at School (GAS);
	High Index of Good Attendance at School (GAS) with Trends

Report Location:	8.3; 8.4 Math and Science

Questionnaire Location:	SCQ2_18Aabc; SCQ2_18Babc

Source Variable:	BC4GFP01, BC4GFP02, BC4GFP03, BC4GSP01, BC4GSP02, BC4GSP03

Procedure:	Based on responses to the following question in the School Questionnaire:

How often does each of the following problem behaviors occur among <eighth-grade> students in your school? If the behavior occurs, how severe a problem does it present?

A. Frequency in your school

Arriving late at school (SCQ2_18Aa, BC4GFP01)

Absenteeism (i.e., unjustified absences) (SCQ2_18Ab, BC4GFP02)

Skipping class <hours/periods> (SCQ2_18Ac, BC4GFP03)

Response options: never = 1; rarely = 2; monthly = 3; weekly = 4; daily = 5

B. Severity of problem in school

Arriving late at school (SCQ2_18Ba, BC4GSP01)

Absenteeism (i.e., unjustified absences) (SCQ2_18Bb, BC4GSP02)

Skipping class <hours/periods> (SCQ2_18Bc, BC4GSP03)

Response options: not a problem = 1; minor problem = 2; serious problem = 3

1 = High = Responded "Never" to BC4GFP01, BC4GFP02 or BC4GFP03 or "not a problem" to BC4GSP01, BC4GSP02 and BC4GSP03

2 = Medium = All other response combinations

3 = Low = Responded "serious problem" for two or three questions or responded "serious problem" for one question and "minor problem" for two questions or if there is one missing source variable and responded "serious problem" for the other two questions in Part B (BC4GSP01, BC4GSP02, BC4GSP03).

Coded as missing if there are 2 or 3 source questions in Part B (BC4GSP01, BC4GSP02, BC4GSP03) with invalid data.

Trend Comments:	Released in 2003 as bcdgsp (Index of Good School and Class Attendance, GSCA). Trends also reported to 1999 in TIMSS 2007 international reports (please refer to TIMSS 1999 User Guide for the International Database).

Derived Variable Name: bcdsrmi	**Variable Label:** Idx Avlbl Schl Rsrcs Math Instrn (ASRMI)	**Grade:** Eighth

Title of International Report Exhibit:
Index of Availability of School Resources for Mathematics Instruction (ASRMI);
High Index of Availability of School Resources for Mathematics Instruction (ASRMI) with Trends

Report Location: 8.7; 8.8 Math

Questionnaire Location: SCQ2_19a-e,g-k

Source Variable: BC4GST01, BC4GST02, BC4GST03, BC4GST04, BC4GST05, BC4MST07, BC4MST08, BC4MST09, BC4MST10, BC4MST11

Procedure: Based on responses to the following question in the School Questionnaire:

Is your school's capacity to provide instruction affected by a shortage or inadequacy of any of the following?
  Instructional materials (e.g., textbook) (SCQ2_19a, BC4GST01)
  Budget for supplies (e.g., paper, pencils) (SCQ2_19b, BC4GST02)
  School buildings and grounds (SCQ2_19c, BC4GST03)
  Heating/cooling and lighting systems (SCQ2_19d, BC4GST04)
  Instructional space (e.g., classrooms) (SCQ2_19e, BC4GST05)
  Computers for mathematics instruction (SCQ2_19g, BC4MST07)
  Computer software for mathematics instruction (SCQ2_19h, BC4MST08)
  Calculators for mathematics instruction (SCQ2_19i, BC4MST09)
  Library materials relevant to mathematics instruction (SCQ2_19j, BC4MST10)
  Audio-visual resources for mathematics instruction (SCQ2_19k, BC4MST11)
Response options: none = 1; a little = 2; some = 3; a lot = 4

The index is computed by averaging the responses to the ten source questions.

1 = High = Average of BC4GST01 to BC4GST05 is less than 2 and the average of BC4MST07 to BC4MST11 is less than 2
2 = Medium = All other response combinations
3 = Low = Average of BC4GST01 to BC4GST05 is greater than or equal to 3 and the average of BC4MST07 to BC4MST11 is greater than or equal to 3

The index is coded as missing if there are 2 or more source questions of BC4GST01 to BC4GST05 with invalid data OR 2 or more source questions of BC4MST07 to BC4MST11 with invalid data.

Trend Comments: Released in 2003 as bcdmasr. Trends also reported to 1995 and 1999 in TIMSS 2007 international reports (please refer to TIMSS 1995 and TIMSS 1999 User Guides for the International Database).

Derived Variable Name: bcdsrsi	**Variable Label:** Idx Avlbl Schl Rsrcs Sci Instrn (ASRSI)	**Grade:** Eighth

Title of International Report Exhibit:
Index of Availability of School Resources for Science Instruction (ASRSI);

High Index of Availability of School Resources for Science Instruction (ASRSI) with Trends

Report Location: 8.7; 8.8 Science

Questionnaire Location: SCQ2_19a-e,l-q

Source Variable: BC4GST01, BC4GST02, BC4GST03, BC4GST04, BC4GST05, BC4SST12, BC4SST13, BC4SST14, BC4SST15, BC4SST16, BC4SST17

Procedure: Based on responses to the following question in the School Questionnaire:

Is your school's capacity to provide instruction affected by a shortage or inadequacy of any of the following?

Instructional materials (e.g., textbook) (SCQ2_19a, BC4GST01)

Budget for supplies (e.g., paper, pencils) (SCQ2_19b, BC4GST02)

School buildings and grounds (SCQ2_19c, BC4GST03)

Heating/cooling and lighting systems (SCQ2_19d, BC4GST04)

Instructional space (e.g., classrooms) (SCQ2_19e, BC4GST05)

Science laboratory equipment and materials (SCQ2_19l, BC4SST12)

Computers for science instruction (SCQ2_19m, BC4SST13)

Computer software for science instruction (SCQ2_19n, BC4SST14)

Calculators for science instruction (SCQ2_19o, BC4SST15)

Library materials relevant to science instruction (SCQ2_19p, BC4SST16)

Audio-visual resources for science instruction (SCQ2_19q, BC4SST17)

Response options: none = 1; a little = 2; some = 3; a lot = 4

The index is computed by averaging the responses to the eleven source questions.

1 = High = Average of BC4GST01 to BC4GST05 is less than 2 and the average of BC4SST12 to BC4SST17 is less than 2

2 = Medium = All other response combinations

3 = Low = Average of BC4GST01 to BC4GST05 is greater than or equal to 3 and the average of BC4SST12 to BC4SST17 is greater than or equal to 3

The index is coded as missing if there are 2 or more source questions of BC4GST01 to BC4GST05 with invalid data OR 2 or more source questions of BC4SST12 to BC4SST17 with invalid data.

Trend Comments: Released in 2003 as bcdmasr. Trends also reported to 1995 and 1999 in TIMSS 2007 international reports (please refer to TIMSS 1995 and TIMSS 1999 User Guides for the International Database).

Derived Variable Name: bcdgppsc	**Variable Label:** Idx Prncpl Percept School Climate (PPSC)	**Grade:** Eighth

Title of International Report Exhibit:

Index of Principals' Perception of School Climate (PPSC) with Trends

Report Location:

8.11 Math

8.12 Science

Questionnaire Location: SCQ2_8a-h

Source Variable: BC4GCHTS, BC4GCHTU, BC4GCHTC, BC4GCHES, BC4GCHPS, BC4GCHPI, BC4GCHSR, BC4GCHSD

Procedure:

Based on responses to the following question in the School Questionnaire:

How would you characterize each of the following within your school?

Teachers' job satisfaction (SCQ2_8a, BC4GCHTS)

Teachers' understanding of the school's curricular goals (SCQ2_8b, BC4GCHTU)

Teachers' degree of success in implementing the school's curriculum (SCQ2_8c, BC4GCHTC)

Teachers' expectations for student achievement (SCQ2_8d, BC4GCHES)

Parental support for student achievement (SCQ2_8e, BC4GCHPS)

Parental involvement in school activities (SCQ2_8f, BC4GCHPI)

Students' regard for school property (SCQ2_8g, BC4GCHSR)

Students' desire to do well in school (SCQ2_8h, BC4GCHSD)

Response options: very high = 1; high = 2; medium = 3, low = 4, very low = 5

The index is computed by averaging the responses to the eight source questions:

1 = High = Average is less than or equal to 2

2 = Medium = Average is greater than 2 and less than or equal to 3

3 = Low = Average is greater than 3

The index is coded as missing if there are 3 or more source questions with invalid data.

Trend Comments:

Released in 2003 as bcdgpsc.

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